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ABSTRACT

This research bulletin includes reports of research (on children) in progress or recently completed from January through May, 1970. Each entry includes information concerning the investigator, purpose, subjects, methods, duration, cooperating groups, and findings (if available). The reports are listed under several topical headings: (1) long-term research, (2) growth and development, (3) special groups of children, (4) the child in the family, (5) socioeconomic and cultural factors, (6) educational factors and services, (7) social services, and (8) health services. (BRT)

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bulletin no. 26

RESEARCH relating to CHILDREN

U.S. DEPARTMENT of HEALTH EDUCATION, and WELFARE
OFFICE of CHILD DEVELOPMENT
OCD
Children's Bureau
1970

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OFFICE OF CHILD DEVELOPMENT - Edward Zigler, Director
Research and Evaluation Division - Charles P. Gershenson, Director

CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE

INVENTORY PREPARED BY

Vivian S. Goldman
Jane A. Harwood
Lena S. Heyman
Patricia E. Page
Barbara E. Rosengard

ADVISORY COMMITTEE

Dale B. Harris, Ph.D.
Pennsylvania State University

Albert J. Reiss, Ph.D.
University of Michigan

William M. Schmidt, M.D.
Harvard School of Public Health

Simon Tulchin, Ph.B.
Consulting Psychologist, New York City

Martin Wolins, D.S.W.
University of California, Berkeley

J. Wayne Wrightstone, Ph.D.
New York City Board of Education

RESEARCH relating to CHILDREN

Bulletin 26

Current and recently completed studies on

- GROWTH and DEVELOPMENT
- PERSONALITY and ADJUSTMENT
- EDUCATIONAL PROCESS
- EXCEPTIONAL CHILDREN
- THE CHILD in the FAMILY
- SOCIOECONOMIC and CULTURAL FACTORS
- SOCIAL SERVICES
- HEALTH SERVICES

January-May 1970

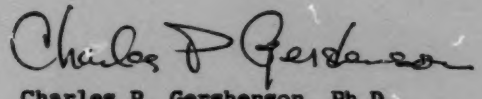
CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE

FOREWORD

This Bulletin, like previous issues, includes reports of research in progress or recently completed. With the exception of the long-term research, it does not report again studies included in Bulletins 3 through 25 even though they may still be continuing. This issue, therefore, does not reflect all research relating to children in a given period but only that which was first reported to the Clearinghouse January through May 1970.

The Clearinghouse has only such information about the studies as the abstracts provide. Publication references and plans are given by some of the investigators but the Clearinghouse does not maintain bibliographic information on published reports of the studies. The reader who wishes to obtain further details about any of the projects reported should check professional journals in the appropriate field or write directly to the investigator.

For the Clearinghouse, I wish to thank those who have submitted reports on their own projects and those who have told us of other studies, and to acknowledge the valuable assistance of the Science Information Exchange, and the foundations which provide us with information about their research grants.



Charles P. Gershenson, Ph.D.
Director, Research and Evaluation
Children's Bureau, Office of
Child Development

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NOTES: Beginning with Bulletin 27, Research Relating to Children will be prepared by the ERIC Clearinghouse on Early Childhood Education under the direction of Lilian G. Katz, Ph.D. The publication will continue to appear, at least initially, in the present format, and all mailing lists will be maintained. Investigators wishing to submit abstracts of their research projects should address correspondence to:

Research Relating to Children
ERIC Clearinghouse on Early Childhood Education
University of Illinois
805 W. Pennsylvania Avenue
Urbana, Illinois 61801

Responsibility for the Children's Bureau's Child Welfare Research and Demonstration Grants program has been assigned to both Community Services Administration, Social and Rehabilitation Service and Children's Bureau, Office of Child Development. Social and Rehabilitation Service will focus on those projects directly related to operating programs and delivery of services, while the Office of Child Development will sponsor a broader perspective of research in such areas as general child development, child welfare, development of new program models, youth studies, and family formation. All day care research will be the responsibility of the Office of Child Development.

LONG-TERM RESEARCH

Note: The reports in this section concern research programs which are more or less continuous.

26-AA-1 THE CHILD RESEARCH COUNCIL

Purpose: To conduct life-span investigations of growth, development, and adaptation of healthy volunteer subjects.
Subjects: 215 healthy middle and upper-middle class volunteers from Denver, ages 1 year to 48 years.
Methods: Current operation is limited to analysis of data collected since 1930 in the areas of physical growth, roentgenographic studies of growth, nutritional intakes, health records, and selected areas of biochemical and functional development. Data are being organized on electronic tape for computer analysis. Projected activity in the coming year includes analysis and publication.
Duration: 1930-continuing.
Investigator(s): Robert W. McCammon, M.D., Director, Virginia A. Beal, M.P.H., Nutritionist, Edith Boyd, M.D., Pediatrician, Charlotte Hansman, M.D., Anthropometrist and Assistant in Roentgenology, Marion M. Maresh, M.D., Roentgenologist, Aldula Meyers, Ph.D., Hematologist, and Virginia E. Trevorrow, Ph.D., Biochemist, Child Research Council, 4200 E. Ninth Ave., Denver, Colo. 80220.
Cooperating group(s): University of Colorado Medical Center; Commonwealth Fund; National Dairy Council; Gerber Products Co.; Nutrition Foundation; Phippa Foundation; National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Reprint lists available from Dr. McCammon.

26-AA-2 ANALYSIS AND EVALUATION OF DATA FROM THE LONGITUDINAL STUDY OF CHILD HEALTH AND DEVELOPMENT BASED UPON MULTIDISCIPLINE AND PERIODIC OBSERVATIONS OF INDIVIDUAL CHILDREN FROM BIRTH TO 18 YEARS

Duration: 1930-continuing.
Investigator(s): Research has been discontinued, but the analyses of data and preparation of reports are being continued by individuals under the direction of Robert B. Reed, Ph.D., Professor and Head, Department of Biostatistics, Harvard School of Public Health, Boston, Mass. 02115.

26-AA-3 LONGITUDINAL STUDY OF CHILD GROWTH AND DEVELOPMENT

Purpose: Program consists of study of adult personality, adjustment, and aging processes of individuals whose health, growth, personality development, and environment have been studied since birth. It included a study of the aging processes of their parents in relation to physical and biochemical measures made earlier. It will include studies of: parental childrearing attitudes and practices of two generations in the same families; constancy of autonomic response patterns to stress from childhood to young adulthood and their relationship to psychosomatic disorders in adulthood; blood lipids in relationship to body composition and change in composition.
Investigator(s): Lester W. Sontag, M.D., Director, Fels Research Institute for the Study of Human Development, Antioch College, Yellow Springs, Ohio 45387.
Cooperating group(s): Public Health Service, U. S. Department of Health, Education, and Welfare.

26-AA-4 LONGITUDINAL CROSS-CULTURAL STUDY OF HUMAN DEVELOPMENT

Purpose: To observe the long-term effects of environment upon growth and health, that is, the influence of environmental factors upon physical and mental development, and the elucidation of their mode of action and interaction with genetic endowment.
Subjects: Several hundred males followed from prepuberty, all with four grandparents from the same limited geographical zone of southern Italy but now living in the markedly different cultures of Boston, Rome, and Palermo; other groups of 100 girls and several hundred boys in Florence, Italy and 200 girls in Boston.
Methods: Repeated medical, anthropometric, and psychological examinations together with family interviews (with evaluation of childrearing practices), nutrition, and sociocultural data.
Findings: Reported in numerous articles in American and European journals. Current work under analysis includes cross-cultural study of moral values, studies of biological age and its estimation, estimation of socioeconomic status across cultures, blood groups and temperament, and changing hemoglobin values in adolescent males. Work involving further and continuing data collection includes prediction of growth variables, cross-cultural study of creativity and its environmental determinants, a study of left-handed subjects in the relatively "permissive" and "intolerant" cultures of the United States and Italy, and an analysis of menstrual symptoms in both cultures.
Duration: 1956-1968.
Investigator(s): Harben Boutourline Young, M.D., Research Associate in Human Growth and Development, Harvard School of Public Health, Boston, Mass. 02115; present address: Harvard Florence Research Project, Via Venezia 10, Florence, Italy.

Cooperating group(s): Grant Foundation; Wenner Gren Foundation; Olivetti Corporation; Universities of Florence, Rome, and Palermo.
Publications: Perceptual and Motor Skills 23:35-40, 1966; Bulletin of the International Epidemiological Association 12:1936, 1965; American Journal of Diseases of Children 106:568-577, 1963; papers and other articles; one book planned, another possible.

26-AA-5 BIOLOGIC AND ENVIRONMENTAL FACTORS IN CHILD DEVELOPMENT

Purpose: To investigate the relationship of biologic, genetic, and environmental factors in the parents--including events during pregnancy, labor, and delivery--to normal and abnormal development of offspring. Expected byproducts of investigation are relationships of these factors to pregnancy wastage in the form of early fetal death, perinatal mortality, infant and childhood mortality, and estimates of incidence of different types of abnormalities. In addition, detailed growth curves for children from birth to six years of age will be derived on a longitudinal basis, as will estimates of illnesses and injuries in infancy and the preschool child.
Subjects: Members of the Kaiser Foundation Health Plan--a prepaid medical care program--who reside in the San Francisco-East Bay area.
Methods: Study is of a prospective, longitudinal type for both mother and child. Observations are made on the gravidas in the Department of Obstetrics and Gynecology, and on the children in the Pediatric Department, and are supplemented by special interviews and laboratory examinations. Physicians' observations are systematized and made more uniform. Special efforts are made to obtain information on members of study who do not return to the plan for medical care.
Duration: July 1959-continuing.
Investigator(s): Jacob Yerushalmy, Ph.D., Professor of Biostatistics, University of California School of Public Health, Berkeley; Stephen Thomas, M.D., Director, Department of Obstetrics and Gynecology, and Edgar Schoen, M.D., Director, Department of Pediatrics, Kaiser Foundation Hospital, Oakland, Calif.
Cooperating group(s): Permanente Medical Group; Kaiser Foundation Research Institute.
Publications: Journal of Pediatrics 71:2:164-172, August 1967; Pediatrics 39:940-941, 1967; American Journal of Obstetrics and Gynecology 88:4:505-518, February 15, 1964; other articles.

26-AA-6 THE BERKELEY, CALIFORNIA GROWTH STUDY

Purpose: A study of the mental and physical growth of normally healthy persons from birth in 1928-1929 to the present.
Subjects: 60 full-term, healthy newborns, born in Berkeley, Calif. hospitals of white, English-speaking parents, if parents were interested--a somewhat selected above-average group; 140 offspring of these subjects, age range from a few months to about 20 years, seen irregularly, but same data (appropriate for age) collected that were collected for their parents.
Methods: Tests of mental and motor development; pediatric examination; interviews at frequent intervals during growth beginning in first week of life. At all visits, inquiries made concerning current health and recent illnesses. Anthropometrics, body photographs, and skeletal X-rays taken at most ages. Socioeconomic data available. Adult records include mental tests, physical examinations, anthropometrics, and current

status interview. Studies of physical aspects of growth include analyses comparing health histories with physical growth and with skeletal maturation. Some parent-child relations in susceptibility to illness could be studied. Emotional and other personality variables studied for consistency, and in various interrelations with maternal behavior in infancy, birth histories, socioeconomic status, intellectual and physical growth.
Duration: 1928-continuing.
Investigator(s): Nancy Bayley, Ph.D., and Dorothy H. Eichorn, Ph.D., Research Psychologists, Institute of Human Development, University of California, Berkeley, Calif. 94720.
Publications: American Psychologist 23:1:1-17, 1968; Monograph of the Society for Research in Child Development 28, 1963; Growth Diagnosis. Chicago: University of Chicago Press, 1959; others.

26-AA-7 MEDFORD, OREGON BOYS' GROWTH STUDY

Purpose: To construct physical and motor growth curves of boys 7 to 18 years of age; to relate physical and motor traits to physiological maturity, physique type, sociopersonal adjustment, interests, and scholastic aptitude and achievement.
Subjects: Cross-sectional samples: 40 boys at each age 9 through 15 years, longitudinal samples: 100 boys at ages 7, 9, 12, and 15 years, tested annually to 18 years.
Methods: Construction of growth and growth acceleration needs; extent of individual differences; contrasting extreme groups on various tests; zero-order, partial, and multiple correlations; factor analysis; multiple regression equations; special studies of athletes; and profile charts of outstanding athletes.
Findings: Contained in 62 master's and doctor's theses to date.
Duration: October 1955-June 1968.
Investigator(s): H. Harrison Clarke, Ed.D., Research Professor of Physical Education, University of Oregon School of Health, Physical Education, and Recreation, Eugene, Ore. 97403.
Cooperating group(s): Oregon State Education Department; Southern Oregon College; Office of Scientific and Scholarly Affairs, University of Oregon Graduate School; Athletic Institute, Chicago.
Publications: Series of brochures planned, to be published by Prentice-Hall, Inc., Englewood Cliffs, N. J.

26-AA-8 GROWTH OF PSYCHOPHYSIOLOGICAL PATTERNS IN INFANCY

Purpose: To investigate the origins and course of development of individual differences in neonates. (See Research Relating to Children, Bull. No. 21-AA-8.)
Subjects: Normal, healthy full-term babies, 2 to 5 days old, born at Bronx Municipal Hospital Center.
Methods: A neonatal behavioral profile established in prior studies in this laboratory will be used. This profile includes behavioral and heart rate ratings on excitation, soothing, feeding, sleep, and non-stimulus periods of observation. Neonates will be followed at two weeks, and one, two, three, and four months of age to measure the stability of early-appearing traits and their relation to later behaviors.
Findings: Data will be analyzed with respect to stability of early-appearing behaviors and relationship between neonatal behavior and maternal and birth history.

Duration: 1966-continuing.
Investigator(s): Wagner H. Bridger, M.D., Associate Professor of Psychiatry, and Beverly Birns, Ph.D., Assistant Professor of Psychology, Albert Einstein College of Medicine, Yeshiva University, Bronx, N. Y. 10461.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: In Early Experience and Behavior; Psychobiology of Development, Grant Newton and Seymour Levine (Eds.). Springfield, Ill.: Charles C. Thomas, 1968, $28.50; Psychosomatic Medicine 28:316, 1966; Child Development, September 1965; others.

26-AA-9 PHILADELPHIA CENTER FOR RESEARCH IN CHILD GROWTH

Purpose: To develop standards and norms of physical growth and development of normal, healthy children of the Philadelphia area.
Subjects: White and Negro children, male and female. Data are longitudinal (usually annual), based on two major samples: birth to 7 years, and 7 to 17 years. Cephalometric (measurement of head, face, jaws) and somatometric (trunk, limbs) standards of second group (white, Negro) are already available; those of first group (white only) will be within the year.
Methods: Cephalometry and somatometry. Measurements are linear, transverse, sagittal, circumferential, skin thickness (via skin calipers), X-ray films of left hand (routinely) and of upper arm or lower leg (reduced number of cases); also of head and face in norma laterales sinistra and norma faciales (roentgenographic cephalometry). Dental models are taken in most cases. Histories secured are: (1) familial in terms of ethnic background and socioeconomic status; (2) medical (illness) and dental (occlusion, dental stage, oral habits); (3) genetic, in terms of the familial occurrence of trait(s) being considered. All data may be referred to several age categories: (1) chronological age (C.A.); (2) dental or eruptive age (D.A.); (3) skeletal or biological age (S.A.). All data have been put on microfilm, coded, and stored in computer memory. (1) School Series: initially based on 600 normal, healthy white school children from five Philadelphia schools, 6 to 12 years of age (ultimately followed to 22 schools). These children have provided the core data upon which our 7- to 17-year standards are based. (2) Negro American Series: based on the semiannual study of some 500 elementary school children. These children have provided the core data upon which our 7- to 17-year standards are based. (3) Orthodontic Series: now numbering some 2,700 children from the Orthodontic Clinics of the University of Pennsylvania (2,200) and the Children's Hospital (500). All of these children have been followed through their treatment course (two to four years, average). On about 10 percent of them there are posttreatment followup studies. (4) Cleft Palate Series: in cooperation with the Children's Hospital. These data are, for the most part, single preoperative roentgenographic cephalometric, plus selected somatometry (H, W, shoulder B, chest B and D, hip B, etc.). There are some 600 such records; in about 10 percent there are followup data. (5) Cooley's Anemia Series: based on some 120 children. Measurements, X-ray films, familiogenetic histories, and therapeutic treatment. Data are longitudinal, on an annual basis. (6) Endocrine and Chromosomal Series: seen on a referral basis from Children's Hospital. Data are followup, though sporadically and irregularly so.
Investigator(s): Wilton M. Krogman, Ph.D., LL.D., Director, Philadelphia Center for Research in Child Growth, and Professor and Chairman, Department of Physical Anthropology, and Geoffrey F. Walker, B.D.S., Director of the Philadelphia Center for Craniofacial Biology, and Research

Associate in Orthodontics, Department of Orthodontics, Division of Graduate Medicine, University of Pennsylvania, Philadelphia, Pa. 19146; Francis E. Johnston, Ph.D., Department of Anthropology, University of Texas, Austin, Tex. 78712.
Cooperating group(s): Children's Hospital of Philadelphia; Philadelphia Board of Public Education; School System, Archdiocese of Philadelphia; National Institute of Dental Research and National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Monograph of the Society for Research in Child Development planned.

26-AA-10 GROWTH RESEARCH UNIT

Purpose: To gain insight into critical factors influencing growth patterns of all children by observing the growth and development of deviates, especially those with pathological diagnoses which have been medically documented.
Subjects: Children with congenital cardiac lesions, and children and adolescents with significant deviations of physical, neurological, and behavioral development.
Methods: Standard anthropometric measures.
Duration: 1929-1969.
Investigator(s): Leona M. Bayer, M.D., Cochairman, Youth Clinic, Research Associate, Heart Center, Pacific Medical Center, San Francisco 94115, and Adjunct Clinical Associate Professor of Medicine, Stanford University, Stanford 94305; Ernst Wolff, M.D., Pediatrician-Coordinator, Service for Developmentally Handicapped Children; and Saul J. Robinson, M.D., Clinical Professor of Pediatrics, University of California Medical Center, San Francisco, Calif. 94122.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: American Journal of Diseases of Children 117:564-572, May 1969; Child Development 40:1:315-346, March 1969; Journal of Pediatrics 62:5:631-645, May 1963; Journal of Clinical Endocrinology and Metabolism 22:1127-1129, November 1962.

26-AA-11 LONGITUDINAL STUDY OF DENTOFACIAL, SKELETAL, PHYSICAL GROWTH, AND NUTRITION OF CHILDREN

Purpose: To study the dentofacial growth of children, standards of nutrition, caries increment as related to nutrition, assessment and skeletal age as related to facial growth, variations in physique and its effect on dentofacial growth. Twins are also being studied to determine heritable traits.
Subjects: 400 children, including 40 pairs of twins, ages 3 to 18 years, who have been observed for periods of 3 to 10 years.
Methods: Cephalograms, hand, wrist, and calf X-rays, intraoral X-rays, study casts, anthropometric measurements, photographs, oral examination, and one-week food diary. Children are examined every six months until 14 years of age.
Duration: 1950-continuing.
Investigator(s): Bhim S. Savara, D.M.D., M.S., Professor and Chairman, Child Study Clinic, University of Oregon Dental School, Portland, Ore. 97201.
Cooperating group(s): Oregon State Board of Dental Examiners; Tektronix

Foundation, Inc.; Medical Research Foundation of Oregon; National Dairy Council; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Growth 31, 1967; Human Biology, May 1967; Archives of Oral Biology 12, 1967; others.

26-AA-12 RADIOGRAPHIC STANDARDS OF REFERENCE FOR SKELETAL DEVELOPMENT OF CHILDREN. REVISIONS AND NEW STANDARDS

Purpose: To develop radiographic standards of reference for skeletal development of children. (See Research Relating to Children, Bull. No. 21-AA-12.)
Methods: Between 1937 and 1962 series of films of approximately 1,000 healthy Cleveland children were used to prepare standards for the hand and wrist, the knee, and the foot and ankle. These standards display a modal (moderate) rate of development of each bone in these three regions of the growing skeleton as they appear at regular intervals between birth and adulthood.
Investigator(s): S. Idell Pyle, Ph.D., Research Associate in Anatomy, Case Western Reserve University School of Medicine, Cleveland, Ohio 44106; William W. Greulich, Ph.D., Research Biologist, National Institute of Child Health and Human Development, Bethesda, Md. 20014, and staff of the National Center for Health Statistics involved in the National Health Survey, Public Health Service, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20201.
Cooperating group(s): Bolton Study (Cleveland); Department of Maternal and Child Health, Harvard University School of Public Health.
Publications: A Radiographic Standard of Reference for the Growing Knee, S. Idell Pyle and N. L. Hoerr. Springfield, Ill.: Charles C. Thomas, 1969; in 1965 a special standard of reference for the hand and wrist of children ages 5 to 17 was selected from the standard plates included in the 1959 Greulich and Pyle atlas for use in conjunction with the National Health Survey of American Children, unpublished.

26-AA-13 COLLABORATIVE STUDIES IN CEREBRAL PALSY AND OTHER NEUROLOGICAL AND SENSORY DISORDERS OF INFANCY AND CHILDHOOD

Purpose: To investigate factors and conditions affecting parents: (1) conditions of pregnancy itself, such as infections, trauma, bleeding, drugs, and progress of labor; (2) environmental factors influencing mother, such as social and economic conditions, emotional stress, and medical care; (3) biological factors in parents, such as age, parity, medical and reproductive history, and immunologic characteristics; (4) genetic background of parents. To investigate in the offspring: disorders of the nervous system of all products of conception at time of delivery or appearing during infancy or early childhood, including cerebral palsy, mental subnormality, behavioral disorders, etc. A detailed investigation of the independent variables will be directed toward the reevaluation of the effect of factors already suspected, the elucidation of the mechanism through which these factors are operative, and the discovery of factors neither presently known nor suspected.
Subjects: Approximately 8,000 live births per year from collaborating institutions for five years. Offspring followed until school age.
Methods: Analysis of pooled information collected in a uniform way in a number of medical centers throughout the country from women studied

during pregnancy and from their offspring followed throughout infancy and early childhood. Intensive study of limited number of cases; less intensive study of as many damaged children and abnormal pregnancies as possible.
Duration: 1956-continuing.
Investigator(s): Heinz W. Berendes, M.D., National Institute of Neurological Diseases and Stroke, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014. Collaborating institutions: Yale University, New Haven, Conn.; Charity Hospital, New Orleans, La.; Johns Hopkins University School of Medicine, Baltimore, Md.; Boston Lying-In Hospital, Children's Medical Center, Harvard University (Warren Anatomical Museum), Boston, Mass.; University of Minnesota Medical School, Minneapolis, Minn.; Columbia-Presbyterian Medical Center and New York Medical College, New York, N. Y.; Children's Hospital of Buffalo, Buffalo, N. Y.; University of Oregon Medical School, Portland, Ore.; Children's Hospital of Philadelphia and Pennsylvania Hospital, Philadelphia, Pa.; Brown University, Providence, R. I.; University of Tennessee Medical School, Memphis, Tenn.; Medical College of Virginia, Richmond, Va.
Publications: Bibliography available from Dr. Berendes; in Research Methodology and Needs in Perinatal Studies, Chapters 5 and 6, S. S. Chipman, A. M. Lilienfeld, B. G. Greenberg, and J. F. Donnelly (Eds.). Springfield, Ill.: Charles C. Thomas, 1966.

26-AA-14 METHODS IN CHARACTER DEVELOPMENT

Purpose: To develop more effective methods in character development in cooperation with families and character-training agencies. (Character is defined in terms of three dimensions: philosophy of values, breadth of social vision, and strength of purpose.)
Subjects: Children and families throughout the United States. These are in churches, YMCA's, and schools, and participate as individual families.
Methods: The methods of development are based on action research, in which the participants cooperate with the laboratory, using methods of coscientist research. Open-ended reports on research goals constitute the basic body of research data. An analysis of these data serves as the basis for the development of new procedures and for the scientific reports which are published concerning it.
Findings: Reports have been prepared concerning hypotheses being tested in the home and character-building agencies. Most of the findings relate to the home, learning, decisionmaking, and methods for character development, plus descriptions of age-level potentials, especially for decisionmaking.
Duration: 1935-continuing.
Investigator(s): Ernest M. Ligon, Ph.D., Director, and staff, Union College Character Research Project, 10 Nott Terrace, Schenectady, N. Y. 12308.
Cooperating group(s): Lilly Endowment, Inc.
Publications: Character Potential: A Record of Research; How to Stand Up for What You Believe, Herbert J. Detweiler. New York: Association Press, 1966; The Marriage Climate, Ernest M. Ligon and Leona J. Smith. St. Louis, Mo.: Bethany Press, 1963; others.

26-AA-15 LONGITUDINAL STUDIES OF CHILDREN WITH CRANIOFACIAL BIRTH DEFECTS

Purpose: To study the epidemiology, genetics, morphology, physiology, and postnatal development of congenitally deformed craniofacial structures.
Subjects: 2,000 subjects.
Methods: Most subjects were initially studied as infants. Procedures include roentgencephalometry and tomography, dental casts, photographs, and speech and hearing, psychosocial, and pediatric evaluations.
Duration: 1949-continuing.
Investigator(s): Samuel Pruzansky, D.D.S., Director, Center for Craniofacial Anomalies, University of Illinois Medical Center, Chicago, Ill. 60612.
Cooperating group(s): Illinois State Pediatric Institute; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Multiple articles in journals of dentistry, medicine, public health, speech and hearing, psychology, and research; list of publications available from Dr. Pruzansky.

26-AA-16 STUDY OF INFANT TWIN PERSONALITY DEVELOPMENT

Purpose: To gain further understanding of normal personality development of identical twins, and of the interaction between environmental and constitutional factors; specifically, to define personality differences in identical twins and to find explanations for these differences.
Subjects: Infant monozygotic twins in an intact family.
Methods: When a diagnosis of multiple pregnancy is made, permission is requested of parents and obstetrician to contact the family for the study. One or two prenatal interviews are held with the parents, and a researcher is present at the delivery to make direct observations of the delivery process and the earliest postnatal period for each twin. Zygosity is determined by studies on the placenta and cord blood. Twins are observed in the pediatric nursery and given a neurological examination, which is repeated at age one. Home visits are made several times a year and involve observation of the twins, questioning of the parents about the twins' growth and development and their own reactions to the twins. Particular attention is paid to those interacting physiological and psychological features which tend toward further differentiation and those which favor the maintenance of similarity between identical twins. The way in which nongenetic constitutional factors influence the family environment as experienced by each twin will be carefully noted.
Duration: January 1967-1980.
Investigator(s): William Pollin, M.D., Chief, James Stabenau, M.D., and Martin G. Allen, M.D., Clinical Associates, Section on Twin and Sibling Studies, Adult Psychiatry Branch, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014; Axel Hoffer, M.D., Assistant Clinical Director, Massachusetts Mental Health Center, 74 Fenwood Rd., Boston, Mass. 02115.

26-AA-17 YOUTH REPORTS

Purpose: To collect and analyze opinions and values of high school age youth.
Subjects: 250 high school students.
Methods: Students were randomly chosen, with the aid of school officials,

from youth enrolled in college preparatory courses in high schools selected to give coverage of urban and suburban schools in each of 12 metropolitan areas in the United States. Each student is sent a set of short open-ended questions and asked to report on the range of opinions in his school or neighborhood group, including his own opinion or not, as he pleases. It is anticipated that the panel will be interviewed in this way three or four times per year. Replies are coded for content; analysis is both quantitative and qualitative.

Findings: The method of mail interviewing is quite successful with this group of students.

Duration: Spring 1969-continuing.

Investigator(s): Elizabeth Herzog, Ph.B., Project Director, Social Research Group, George Washington University, 2401 Virginia Ave., N.W., Washington 20006; and Cecelia E. Sudia, M.A., Research Analyst, Research and Evaluation Division, Children's Bureau, Office of Child Development, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20201.

Publications: Teenagers Discuss the "Generation Gap"--Youth Reports No. 1. U. S. Department of Health, Education, and Welfare, 1970.

GROWTH AND DEVELOPMENT

General

26-BA-1 THE DEVELOPMENT OF YOUNG CHILDREN IN RESIDENTIAL CARE

Purpose: To assess the development of young children in residential nurseries; to study the way in which structured characteristics of the nursery affect the language used by the staff and the language development of the children.
Subjects: Children under age five who have been in residential nurseries for at least six months.
Methods: The intellectual development, affectional relationships, and behavior problems of 30 two-year-olds in residential nurseries are compared with those of 30 two-year-olds living at home. Language development of 85 children in nurseries is assessed, and observational studies are made of staff talk and activity and staff-child interaction in 13 residential nurseries.
Duration: October 1967-October 1972.
Investigator(s): Jack Tizard, Ph.D., Professor, Barbara Tizard, Ph.D., Research Officer, and Anne Joseph, B.A., Research Assistant, Department of Child Development, Institute of Education, London University, 57 Gordon Sq., London, W.C. 1, England.
Cooperating group(s): Dr. Barnardo's Society; Church of England Children's Society; National Children's Home.
Publications: Monograph in preparation; articles planned.

26-BA-2 IDENTIFICATION OF PRESCHOOL CHILDREN WITH POTENTIAL LEARNING DIFFICULTIES

Purpose: To identify and examine preschool children, entering kindergarten in the fall of 1969, who showed signs or symptoms of developmental delay or deviation; to initiate a program of parent training and counseling; and, at the time of school entry, to plan appropriately, consult with teachers, and provide special services if necessary.
Subjects: 226 children and their mothers.
Methods: A developmental questionnaire, prepared with medical consultants, was sent to parents with an accompanying letter. Home visits were made for parent-child observation and informal screening. Selected cases received followup, testing, observation in nursery school, parent training, and counseling, and at school entry, teachers were consulted.
Findings: Behavioral and emotional problems were identified.
Duration: September 1968-September 1969.
Investigator(s): Gertrud L. Wyatt, Ph.D., Director, Psychological and Speech Therapy Services, Wellesley Public Schools, Wellesley, Mass. 02181.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Paper presented at American Orthopsychiatric Association Meeting, San Francisco, March 1970. Paper prepared for American Journal of Orthopsychiatry. Mimeographed progress report available.

Physical

26-CA-1 STUDIES IN GROWTH AND DEVELOPMENT IN WESTERN CANADIAN INDIANS

Purpose: To study cross-sectional growth and skeletal maturity data of Western Canadian Indians in order to further clarify the issue of the effects of environmental v. genetic factors in human growth.
Subjects: All available children in five Indian communities in British Columbia and the Yukon; further study will include some semiurbanized groups.
Methods: Children were measured anthropometrically with the use of techniques advocated by Tanner; also, skeletal maturity and cortical indices on hand-wrist radiographs were measured in all subjects. Resulting data are considered in the context of a larger study on nutrition and health.
Findings: Data indicate differences in developmental patterns in the first two groups studied.
Duration: March 1968-continuing.
Investigator(s): Reported by John A. Birkbeck, M.B., Ch.B., Assistant Professor, Department of Pediatrics, University of British Columbia, Vancouver 168, British Columbia, Canada.
Cooperating group(s): Division of Human Nutrition, School of Home Economics, and Department of Anthropology and Sociology, University of British Columbia.
Publications: American Journal of Physical Anthropology 31:391-398, 1969.

26-CC-1 DEVELOPMENT OF SENSORY ANALYZERS

Purpose: To investigate sensory and perceptual development during infancy.
Subjects: Neonates and older infants.
Methods: Psychophysiological studies of the orienting reflex, of the effects of continuous stimulation on arousal level, and of learning and conditioning during early life.
Duration: July 1969-not reported.
Investigator(s): Yvonne Brackbill, Ph.D., Professor of Obstetrics and Gynecology, and Pediatrics for Psychology, Georgetown University Hospital, Washington, D. C. 20007.
Cooperating group(s): National Science Foundation; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Information available from Dr. Brackbill.

26-CH-1 A STUDY OF THE RELATIONSHIP OF ARTICULATION AND SPEECH SOUND IDENTIFICATION ABILITIES OF NORMAL SPEAKING AND SPEECH DEFECTIVE CHILDREN

Purpose: To investigate the relationship of articulation and speech sound identification abilities of children with normal speech and those with functional articulatory defects; to determine if speech defective children's identification errors are significantly more frequent with sounds which they misarticulate than with sounds they produce correctly.
Subjects: Experimental group of 15 kindergarten children with /w/ for /r/

substitutions; control group of 15 kindergarten children with no articulatory errors; and developmental group of 15 nursery school children in top 25 percent of their peers in sound production.
Methods: Identification task was composed of four tests with a total of 15 contrasting word pairs. The stimuli in each pair differed from one another by one phoneme. Test 1, four /r/-/w/ contrasts in initial position; Test 2, four acoustically similar contrasts in initial position; Test 3, four acoustically dissimilar contrasts in initial position; Test 4, three vowel contrasts in medial position. All stimuli were tape recorded and matched for minimal differences of duration, loudness, pitch, inflection, and voicing characteristics. Trained adult listeners judged the paired words to be well matched on all parameters. All stimulus items were subjected to varying degrees of distortion on a continuum which ranged from no distortion to maximum distortion. Subjects responded by pointing to the appropriate picture.
Findings: Correct identification of speech sounds is positively related to the subject's ability to correctly produce the sounds. Poor identification of sounds was related to specific articulatory errors rather than a general perceptual deficiency.
Duration: January 1969-June 1970.
Investigator(s): Lorraine M. Monnin, Ph.D. Candidate, Professor of Speech Pathology, California State College, Los Angeles, Calif. 90032.
Cooperating group(s): Belmont School District, Bing Nursery School, and Ruth Wood Nursery School.
Publications: Study will be available from Stanford University Library, Palo Alto, Calif.

Intellectual

26-DA-1 NUTRITION AND INTELLECTUAL DEVELOPMENT

Purpose: To investigate the relationship between nutrition, especially during the first two years of life, and intellectual performance in school and in later life; to study the role of social and environmental factors in intellectual development.
Subjects: School children and mothers of infants in Philippine rural communities.
Methods: Data concerning children's diets have been collected by interviewers and from records of family expenditures, and children have been tested in the schools with a nonverbal intelligence test developed for use in the Philippines.
Duration: Not reported-continuing.
Investigator(s): George M. Guthrie, Ph.D., Professor of Psychology, and Helen A. Guthrie, Associate Professor of Foods and Nutrition, Pennsylvania State University, University Park, Pa. 16802.
Cooperating group(s): Child Study Center, Philippine Normal College; U. S. Department of Defense.
Publications: Institute of Philippine Culture Papers, No. 6, 129-148, 1968 (available in U. S. from Cellar Book Shop, Detroit, Mich.); Philippine Journal of Psychology 1:28-34, 1968; Philippine Nonverbal Intelligence Test, distributed in the U. S. by Research Psychologists Press, 1968; Childrearing and Personality Development in the Philippines. University Park, Pa.: The Pennsylvania State University Press, 1966.

26-DA-2 THE EFFECTS OF ASSESSMENT AND PERSONALIZED PROGRAMMING ON SUBSEQUENT INTELLECTUAL DEVELOPMENT OF PREKINDERGARTEN AND KINDERGARTEN CHILDREN

Purpose: To evaluate a program of individualized instruction designed to increase intellectual development of children.
Subjects: 100 prekindergarten children randomly selected from 10 school districts; 180 children in six kindergarten classes.
Methods: A one-year prekindergarten experiment with first group of 100 children included assessment of each child's developmental skills through new tests and specially selected instructional materials, methods, and techniques adapted to individual needs. Program design was based on development of motor, auditory, visual, cognitive, and verbal skills to approach reception, cognition, and expression operations necessary for the development of intellectual skills. Children continued in this program for two years after they had started to attend elementary schools in their own districts. The same class arrangement was used with the program which was modified on the basis of the previous year's experience in the prekindergarten field test. The second group of 180 children was involved in a one-year kindergarten field test as an adjunct to writing a program guide.
Duration: September 1966-July 1970.
Investigator(s): Alice O. Coffman, M.A., Director, Title IV Project, University City School District, 725 Kingsland Ave., University City, Mo. 63130.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education, July 1970.

26-DB-1 PUPILLARY DILATION AS A MEASURE OF COGNITIVE FUNCTIONING IN KINDERGARTEN AND HIGH SCHOOL STUDENTS

Purpose: To use changes of pupil size during a variety of tasks as a measure of cognitive functioning; specifically, to test the assumption that greater pupillary dilation was directly related to task difficulty for the subjects.
Subjects: 30 middle class and 30 disadvantaged non-Caucasian high school students; 22 middle class Caucasian, 20 disadvantaged Caucasian, and 22 disadvantaged non-Caucasian kindergarten children.
Methods: The activity of the pupil of the eye was recorded photographically at the rate of one frame per second while the subject was engaged in a number of tasks involving mental activity. The kindergarten subjects were tested during three sessions on identification of numbers, colors, and objects; answering questions; and discrimination problems which varied in complexity. The high school subjects were tested in two sessions on identification of objects, discrimination problems, and several mental problem-solving tasks.
Findings: Findings indicated no gross differences between middle class and disadvantaged populations at either age level, although there were isolated instances where significant response differences occurred between groups.
Duration: May 1968-November 1969.
Investigator(s): James M. Polt, Ph.D., Assistant Professor of Psychology, Temple Buell College, Denver, Colo. 80220.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Paper presented at Society for Research in Child Development Meeting, Santa Monica, Calif., March 1969.

26-DB-2 DEVELOPMENTAL PATTERNS OF STATIC BALANCE ABILITY AND THEIR RELATION TO COGNITIVE SCHOOL READINESS

Purpose: To study the developmental patterns of children's ability to control static equilibrium as it relates to states of consciousness and efficient cognitive functioning.
Subjects: 80 children in kindergarten to grade two and a second group of 30 boys and 30 girls from a different school; children showing severe learning difficulties at end of first school grade.
Methods: Baseline data on control of static balance is gathered on the first group of 80 children, and normative sampling is done on the second group, who are also tested for perceptual organization, verbal intelligence, and numerical school readiness. Control of static equilibrium is measured in various postures demanding balance, and an electronic ataxiameter with feedback mechanism is used to measure success or failure in maintaining balance. Correlations among measures are computed with strict controls for chronological age, and special attention is given to students showing a lack of school readiness. Treatment conditions aiding in the maintenance of static equilibrium are designed for children with learning difficulties.
Duration: Not reported.
Investigator(s): Reuven Kohen-Raz, Ph.D., Visiting Associate Professor, Stanford University Medical School, Stanford, Calif. 94305.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: To be published in Pediatrics.

26-DC-1 THE ROLE OF STIMULUS PREFERENCE IN CHILDREN'S LEARNING BEHAVIOR

Purpose: To investigate the tendency of children to prefer one perceptual mode over another and to determine the effects of this preference on other behavior; specifically, to determine trends in mode of perception and related variables, the relationship of mode of perception to selected motion and verbal skills, and the relation between mode of perception of concept utilization and knowledge of selected cultural symbols.
Subjects: 128 children residing in Logan, Utah.
Methods: Each child's preferred perceptual pattern is determined by his performance on a verbal response color-form-size perception test. Scores are categorized by child's age, sex, and nursery school experience and analyzed relative to results on the Peabody Picture Vocabulary Test, developmental drawing and concept utilization tests, form and color vocabulary scores, and knowledge of clothing symbols utilizing color, form, and size stimuli.
Duration: January 1968-November 1969.
Investigator(s): David R. Stone, Ph.D., Professor of Psychology, Utah State University, Logan, Utah 84321.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education.

26-DC-2 EFFECTS OF VARIABLE IRRELEVANT DIMENSIONS ON THE DISCRIMINATION REVERSAL LEARNING OF NURSERY SCHOOL CHILDREN

Purpose: To evaluate the effects of stimulus conditions on children's tendency to respond dimensionally in discrimination learning.
Subjects: 48 children, ages 41 to 65 months, from the Worthington Presbyterian Nursery School.

Methods: A modified Wisconsin General Test Apparatus was used to test discrimination learning and reversal. One or two variable irrelevant dimensions were included; color, form, or size were relevant with two values used per dimension. Token rewards for correct responses were subsequently traded for toys.
Findings: Size is the most salient feature and produces dimensional response. Color and form produce dimensional response only when two irrelevant dimensions are present.
Duration: January 1969-completed.
Investigator(s): J. Dennis Nolan, Ph.D., Assistant Professor of Psychology, and Leah V. Pendarvis, M.A., Graduate Student, Department of Psychology, Ohio State University, Columbus, Ohio 43210.
Publications: To be submitted to Developmental Psychology.

26-DC-3 REVERSAL AND EXTRADIMENSIONAL SHIFTS IN TWO SOCIOECONOMIC GROUPS OF PRESCHOOL CHILDREN

Purpose: To evaluate socioeconomically-based deficits in the tendency to respond dimensionally or use mediators in learning simple discriminations.
Subjects: 64 preschool children from low and middle socioeconomic levels, ages 51 to 63 months.
Methods: A modified Wisconsin General Test Apparatus was used to test discrimination learning and either reversal or extradimensional shift. One variable irrelevant dimension was included; color or form was relevant with two values per dimension. Testing was presented as a game, and correct responses were rewarded with marbles which children later returned.
Findings: Children of middle socioeconomic status learn more dimensionally than those of lower status.
Duration: March 1969-completed.
Investigator(s): Helene Heye, Ph.D., Professor of Home Economics, J. Dennis Nolan, Ph.D., Assistant Professor of Psychology, and Katherine A. Bobula, M.S., Graduate Student, Ohio State University, Columbus, Ohio 43210.
Cooperating group(s): Head Start, Office of Economic Opportunity, now being administered by the U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to Developmental Psychology.

26-DC-4 A STUDY OF FAMILIAL BACKGROUND AND COGNITIVE STYLE CHARACTERISTICS OF RELATIVELY SUCCESSFUL AND UNSUCCESSFUL LEARNERS (DETERMINED LONGITUDINALLY) IN A HARLEM ENRICHMENT PROGRAM

Purpose: To investigate the prediction that "unsuccessful" learners (determined longitudinally) can be characterized by patterns of psychosocial parameters, falling into familial, cognitive and communicational dimensions, which would significantly differentiate them from a group of more successful learners.
Subjects: 36 children who had completed third grade in an enrichment program in several New York City public schools. Controlling for program exposure, relatively recent "fillers" were eliminated from the sample so that only those children with several years of exposure to the program would be included.
Methods: On the basis of the Standard-Binet and the Gates-McGinitie Reading Tests, the children were characterized by their change scores from an initial point of time to a time several years later as high or low gainers

or very high or very low gainers, each child thus receiving two designations. To explore variables, the following were devised: (a) reliable tasks and measures designed to yield communicational and language behavior in small group situations; (b) reliable rating scales to be used by two independent raters in rating language and communicational behavior of the subjects in these situations; (c) a comprehensive family interview schedule designed to encourage and permit participation by all family members; and (d) a set of reliable ratings with regard to communicational and language variables to be used independently by two interviewer-observers in the index child's home. Data are being analyzed to ascertain whether family variables as obtained from interviews, and "cognitive style", as observed in small peer groups are indeed related to the child's ability to profit from an enrichment program.
Findings: Findings, to date, consist mainly of reliability studies for the various measures employed. In the case of the interviews and cognitive style sessions, independent observer ratings of communicational and language behavior appear to be highly reliable. Analyses of the index child's cognitive style session rating indicate that this variable taken alone does not contribute significantly to the high-low classification of the subjects as determined by the already noted change scores. Currently in progress is an examination of the relationship of items from the extensive family interview (as well as family ratings) to the high-low change status of the child.
Duration: September 1968-August 1970.
Investigator(s): Cynthia P. Deutsch, Ph.D., Research Professor, and Florence Schumer, Ph.D., Senior Research Scientist, Institute for Developmental Studies, New York University School of Education, New York, N. Y. 10003.
Cooperating group(s): U. S. Office of Economic Opportunity.

26-DC-5 AGE DIFFERENCES IN INFORMATION PROCESSING OF AN AMBIGUOUS LEARNING TASK

Purpose: To study the decisionmaking behavior of college and elementary school students.
Subjects: 300 students in introductory psychology classes at the University of Cincinnati, and 150 children in grades three and four.
Methods: Three separate studies were performed using two groups of 150 college students each and one of the younger children with each group balanced for sex composition. Experimental variables included problem difficulty, amount of information feedback, and types of instruction given. In each of the three studies, subjects were randomly assigned to groups scheduled to receive 100, 60, or 20 percent feedback. Within these groups, half of the subjects received instructions compelling them to concentrate on correct guessing, and the other half were instructed to concentrate on probability for the display of a triangle, square, or circle. Subgroups were further divided with half receiving a 60-30-10 schedule of discrimination ease and the remainder receiving a 50-30-20 schedule. Reward and penalty procedures involved monetary payoff or loss for the college students and candy for the younger children. Group differences were assessed with multiple-range tests and analyses of variance.
Duration: June 1968-December 1969.
Investigator(s): Phillip C. Green, Ph.D., Associate Professor of Psychology, Bowling Green State University, Bowling Green, Ohio 43402.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Articles in preparation for publication.

26-DD-1 IMPROVING PREDICTION OF ACADEMIC ACHIEVEMENT

Purpose: To better predict academic achievement by combining intelligence and personality measures; to clarify the reasons for the increased predictability by relating personality to performance in laboratory learning tasks.
Subjects: 2,000 elementary school pupils, ages 8 to 11.
Methods: Group personality, intelligence, and achievement testing; group measures of learning.
Findings: Personality measures add six percent unique variance to prediction equation over and above that accounted for by intelligence.
Duration: Not reported.
Investigator(s): Earl C. Butterfield, Ph.D., Associate Professor, and S. Joseph Weaver, Ph.D., Assistant Professor, University of Kansas Medical Center, Kansas City, Kan. 66205.
Cooperating group(s): Shawnee Mission, Kansas School District; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Two articles submitted to Journal of Educational Psychology.

26-DE-1 NUMBER CONSERVATION IN CHILDREN

Purpose: To ascertain effects of discrimination training on conservation ability and the degree to which training may generalize from one dimension of the conservation problem to other dimensions; to investigate the correlates of conservation ability.
Subjects: Children, ages three to six, from nursery schools and public elementary schools in Granville, Ohio and Grinnell, Iowa.
Methods: Children of each age level are pretested for conservation of number, mass, and volume with the standard Piagetian testing procedures. They are also pretested for the achievement of various other concepts of space, time, and causality. Those who do not show conservation are then randomly divided into training and control groups. The training group receives discrimination training for number conservation. Posttests on all measures are then administered to children in both groups.
Findings: Preliminary findings indicate that automated visual discrimination training of number concepts can produce number conservation in four- and five-year-old children. Other findings suggest that certain other concepts involving space are also affected by the training.
Duration: September 1968-September 1970.
Investigator(s): John P. Morris, Ph.D., Assistant Professor of Psychology, Grinnell College, Grinnell, Iowa 50112.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to submit to a professional journal upon completion of data analysis, anticipated September 1970.

26-DF-1 CORRELATES OF PROBLEM-SOLVING FLEXIBILITY

Purpose: To review briefly the relations of creativity to cognitive, personality, and motivational variables, and to study one ability commonly assessed in creativity batteries: problem-solving flexibility (PSF).
Subjects: Children in the first three grades of a middle class white suburban school.
Methods: Data were gathered from school records on I.Q., sex and age of siblings, and grades. Children were administered the Sarason et al.

(1960) Test Anxiety Scale for Children, an Investigatory Activities Inventory, a verbal absurdities procedure, and a task measuring recall of novel information. Problem-solving flexibility was assessed in individual testing. Teachers rated students on a Student Behavior Profile and Adjective Checklist.
Findings: An hypothesis linking PSF with alertness to and interest in the environment was generally supported, more strongly for boys than for girls. PSF was associated positively but weakly with I.Q., was negligibly related to test anxiety, and was positively correlated with school achievement.
Duration: Not reported-January 1970.
Investigator(s): Ellen Greenberger, Ph.D., Senior Research Scientist, Jeanne O'Connor, B.A., and Annemette Sorensen, Research Assistants, Center for the Study of Social Organization of Schools, Johns Hopkins University, Baltimore, Md. 21218.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Developmental Psychology, in press, 1970.

26-DG-1 DISCRIMINATIVE REDUNDANCY IN SIMPLE OUTLINE DRAWINGS

Purpose: To determine what percentage of simple outline drawings are redundant by investigating how much of the drawings can be deleted with the object still recognizable; to determine if the percentage of redundancy varies systematically with age and intelligence.
Subjects: Grade school children, mental retardates, and people with advanced degrees.
Methods: Subjects were presented with 46 outline drawings of familiar animate and inanimate objects, each of which had progressively greater percentages of lines systematically deleted starting at 80 percent and decreasing in five percent steps to 50 percent.
Duration: July 1969-June 1970.
Investigator(s): Herman H. Spitz, Ph.D., Director of Research, E. R. Johnstone Training and Research Center, Bordentown, N. J. 08505.
Publications: To be published in appropriate journal.

26-DH-1 DEVELOPMENT OF ORAL LANGUAGE ABILITIES FROM INFANCY TO COLLEGE

Purpose: To compare language acquisition abilities at various ages, and to isolate factors involved in language learning in children.
Subjects: Normal children and young adults.
Methods: Various age groups are assessed and compared on both production and perception of phonological distinctions which are not found in the subject's own language.
Duration: June 1969-June 1971.
Investigator(s): Jacqueline Sachs, Ph.D., Assistant Professor, Department of Speech, University of Connecticut, Storrs, Conn. 06268.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-DH-2 YUCATEC MAYA LANGUAGE ACQUISITION

Purpose: To determine the order of acquisition of various aspects of linguistic structure in the speech of Yucatec Maya-speaking children, including segmental phonology, suprasegmental phonology, verb morphology, and superficial word order and phrase structure.

Subjects: 22 children, ages three and one-half to fourteen, living in a peasant community of 1,200 people in Yucatan, Mexico.
Methods: The children were presented with various types of elicitation stimuli: (1) phonetic, lexical, and sentential stimuli were simply to be imitated as they were played for each child; (2) short recorded dialogues were used as the basis for short sets of questions to be answered by each child; (3) body parts and pictures of common animals and household objects were to be named by the child as they were pointed at by the investigator; (4) language laboratory-type structural change drills were designed to test the child's mastery of the derivational morphology of Yucatec Maya verbs. All children's responses were recorded on magnetic tape.
Duration: June 1968-June 1970.
Investigator(s): Norman A. McQuown, Ph.D., Professor of Anthropology and Linguistics, and H. Stephen Straight, Ph.D. Candidate, Graduate Student, Department of Linguistics, University of Chicago, Chicago, Ill. 60637.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare; National Science Foundation.
Publications: Doctoral dissertation; other publications planned.

26-DH-3 LANGUAGE IN THE CLASSROOM

Purpose: To determine the structure of discourse in the classroom.
Subjects: 50 classroom lessons from an urban ghetto area.
Methods: Videotaped lessons are transcribed, reconstructed, and coded for language complexity, paraphrase, and grammatical case.
Duration: Fall 1968-Spring 1972.
Investigator(s): Marvin D. Loflin, Ph.D., Assistant Professor of Anthropology, and Research Associate, Center for Research in Social Behavior; Bruce J. Biddle, Ph.D., Professor of Social Psychology, and Director, Center for Research in Social Behavior; and Nancy Barron, M.A., Research Associate, Center for Research in Social Behavior, University of Missouri, Columbia, Mo. 65201.
Publications: Journal articles, monographs, books planned.

Personality

26-EA-1 THE CUNNING OF CHILDREN

Purpose: To show that children manipulate their parents, since they do not have the physical force to command or order what they desire.
Subjects: 30 children, ages two and one-half to nine.
Methods: Six children are observed at home and 12 in a clinic study. Mother's history is taken in seven cases, two fathers are observed, and caseworkers are interviewed in three cases. All of the children are studied to determine how they get attention and what things they desire.
Findings: Children know the weaknesses of their parents, and the type of appeal depends on the needs of the child.
Duration: 1964-1970.
Investigator(s): E. Y. Williams, M.D., Professor, Department of Neuropsychiatry, Howard University Medical School, Washington, D. C. 20011.

26-EA-2 THE ANTECEDENTS OF COMPETENCES

Purpose: To study the early stages in the development of an orientation of competence; specifically: to delineate progressive changes in the nature and extent of infants' exploratory behavior during the second year of life; to specify factors and conditions associated with particular patterns of development of exploratory behavior during this period; to establish the relation between development during the second year of life and the child's subsequent ability and desire to cope actively and effectively with social and intellectual tasks imposed by entry into nursery school.
Subjects: Sample of infants and their families on the waiting list of applicants to the University of California Child Study Center nursery school program, and a second group representing a population of different characteristics chosen from the West Oakland Parent-Child Center.
Methods: Specific infant and environment qualities theoretically relevant to the development of a competence orientation are observed longitudinally in both naturalistic and structured settings.
Duration: 1969-continuing.
Investigator(s): Jack Block, Ph.D., Professor of Psychology, and Wanda C. Bronson, Ph.D., Research Psychologist, University of California, Berkeley, Calif. 94720.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

26-EA-3 A COMPARISON STUDY OF NURSERY SCHOOL CHILDREN FROM A LOWER SOCIOECONOMIC LEVEL

Purpose: To expand to children from lower socioeconomic backgrounds findings of a previous developmental assessment study in which a large proportion of middle class children of preschool age showed pathology in their developmental progression. Questions were raised as to whether sociological variables such as educational and occupational level were of significance in the developmental progression of the child.
Subjects: 50 children, ages three to four and five to six, attending various community nursery schools in the Metropolitan New York area.
Methods: Mother is interviewed regarding child's current behavior and functioning, and on longitudinal information; father is interviewed on his evaluation of the child's functioning in the home and the child's relationship with him and with other family members. Nursery school teacher assesses child's current functioning in the nursery school setting and all changes in the child during the period of school attendance. Each child is interviewed and observed in the nursery school, with focus on ways in which he relates to other children and to teachers, his play and fantasies, and his ego functioning. Psychological tests, including Stanford-Binet Intelligence Scales, Rorschach, C. A. T., and figure drawings provide further data for assessment of the developmental progression of each child.
Duration: July 1967-June 1972.
Investigator(s): Dorothy Flapan, Ph.D., Director of Research Projects, and Peter B. Neubauer, M.D., Director, Child Development Center, 120 W. 57th St., New York, N. Y. 10019.
Cooperating group(s): Grant Foundation.
Publications: Articles planned upon completion of data analysis.

26-EB-1 ALIENATION IN BLACK ADOLESCENTS

Purpose: To establish validity for the concept of alienation as it relates to black adolescents in high school; to explore the relationships that exist between alienation and academic achievement, participation in black-related activities, exploratory preferences, coping styles, and internal-external control.
Subjects: 150 black senior males currently attending two high schools in Detroit, Mich.
Methods: Presently two methods are being developed: (1) a questionnaire designed to tap the presence and strength of feelings of alienation; (2) a peer-rating instrument constructed to indicate the rate and range of participation in black-related activities. Two instruments, internal-external control inventory and an exploratory preference questionnaire, have already been developed.
Duration: June 1969-August 1970.
Investigator(s): James G. Kelly, Ph.D., Research Associate, Center for Research on the Utilization of Scientific Knowledge, Institute for Social Research, and Professor of Psychology, and D. Phillip McGee, B.A., Assistant Project Director, Center for Research on the Utilization of Scientific Knowledge, Institute for Social Research, and Lecturer in Psychology, University of Michigan, Ann Arbor, Mich. 48108.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

26-EB-2 THE RELATIONSHIP BETWEEN INNER VERSUS OUTER LOCUS OF CONTROL AND ACHIEVEMENT IN BLACK MIDDLE SCHOOL CHILDREN: A PSYCHOMETRIC AND VALIDITY STUDY

Purpose: To investigate the structure of attitudes toward self, group pride, achievement motivation, and system v. individual blame; to look at the relationships between these attitudes and the common instruments used to test inner-outer locus of control.
Subjects: 1,000 urban children, 800 of them black, in grades 5 through 9.
Methods: Children are seen in groups of five. All questionnaire items (other than Battle) are administered via tape recording. Same race examiner is used. Instrument consists of all Crandall, Katkovsky and Crandall, Bialer-Cromwell, and Battle items, as well as all items from Gurin scales (group pride, individual-system blame) reworded for children.
Duration: June 1969-January 1971.
Investigator(s): Marcia Guttentag, Ph.D., Assistant Professor of Psychology, Queens College, City University of New York, Flushing, N. Y. 11367.
Cooperating group(s): Carnegie Corporation.
Publications: Plan to publish in psychology journals.

26-EB-3 EFFECTS OF SOME AUDIOVISUAL TECHNIQUES ON RACIAL SELF-CONCEPT OF NEGROES AND RACIAL ATTITUDES OF WHITES

Purpose: To investigate the impact of films about successful Negroes on the racial self-concept of Negro youths and ethnocentric attitudes of white children; specifically, to determine whether an increase in Negro racial pride necessarily results in greater hostility towards Caucasians and whether status threat increases are correlated with increased prejudice among Caucasians following the films.
Subjects: Six experimental and six control groups of sixth, seventh, and eighth grade children from two schools serving a lower socioeconomic

Negro population and two serving a middle class Negro population in the Chicago Catholic Schools system.
Methods: Films concerning successful Negroes are shown by classroom teachers on a weekly basis as a natural part of the curriculum. Multifactor analysis of variance is used to detect significant interaction effects. Analyses include examination of personality traits and occupations assigned to photographs, changes in personal vocational aspirations following films, disparity of vocational aspirations and predicted personal occupation before and after films, responses to and attitudes toward a sentence completion test, and responses to questionnaires on individual film characters.
Duration: Not reported.
Investigator(s): John E. Teahan, Ph.D., Associate Professor of Psychology, Wayne State University, Detroit, Mich. 48202.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-EC-1 MODELS, NORMS, AND ALTRUISM

Purpose: To investigate factors influencing altruistic behavior; specifically, to determine whether salience of the social responsibility norm is correlated with generosity, and to determine whether only the specific generous behavior of a model in an experimental situation is imitated or whether a broader orientation towards altruism is internalized.
Methods: In an experimental situation, children are given the opportunity to share with a more appealing charity, with a less appealing charity to which a model has donated, and/or with the model himself.
Duration: November 1969-August 1970.
Investigator(s): Mary B. Harris, Ph.D., Assistant Professor, Department of Educational Foundations, University of New Mexico, Albuquerque, N. M. 87106.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Child Development, in press, 1970.

26-ED-1 THE MODELING OF CARTOON MEDIATED AGGRESSION

Purpose: To study the effect of cartoon violence on children's play.
Subjects: 19 white children and 20 Negro children, ages four and five.
Methods: Children were divided into experimental and control groups. Experimental group viewed a violent cartoon entitled "Cat Feud", and controls viewed a nonviolent cartoon entitled "Little Snowflake". Subsequent to viewing the cartoons, all children were allowed to play with two large experimental toys, one requiring an aggressive response (punching) to operate, and the other requiring a nonaggressive response (button pushing).
Findings: The modeling effect was not obtained.
Duration: June-September 1969.
Investigator(s): Samuel M. Cameron, Ph.D., Associate Professor of Psychology, and Linda Abraham, B.A., Student, Beaver College, Glenside, Pa. 19038.
Cooperating group(s): National Science Foundation.
Publications: Submitted to Eastern Psychological Association Convention, Atlantic City, 1970.

26-ED-2 COMPARISON BETWEEN ADULT AND KINDERGARTEN CHILDREN'S RESPONSES TO AGGRESSIVE AND NEUTRAL ONE-SYLLABLE VERBS; RELATIONSHIP BETWEEN LEARNING HIGH IMPACT AGGRESSION VERBS AND MODES OF EXPRESSING AGGRESSION IN KINDERGARTEN CHILDREN: A PAIRED-ASSOCIATE STUDY

Purpose: To determine whether physiological responses of children and adults differ toward verbs which are considered high impact by children; to test hypotheses that all the children will learn high impact aggression words faster than neutral words, that prosocial children will learn high impact words faster than asocial children, and that all the children will retain high impact words longer than neutral words.
Subjects: 50 kindergarten children and five adults.
Methods: Twenty one-syllable, present tense verbs, 10 neutral ones and 10 highly aggressive ones, are selected from 200 one-syllable, present tense verbs. Adults, individually, select the verbs by a Q-Sort method. The children, individually, are presented the words verbally by an adult and their physiological responses recorded by a plethysmograph. Reading readiness level is determined by the Bender Gestalt Visual-Motor Test. Direction and reaction to frustration are determined by individual administration of the Rosenzweig Picture Frustration Study. The 20 verbs selected in Part I are presented to each child in random order for learning.
Duration: April-May 1970.
Investigator(s): Gaston E. Blom, M.D., Professor of Education and Psychiatry, Acting Chairman, Department of Psychiatry, and Director, Day Care Center, and Sara Goodman Zimet, Ed.D., Instructor in Psychiatry, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal publication planned.

26-EG-1 EFFECTS OF A COMMITMENT WARNING ON CHILDREN'S DECISION BEHAVIOR

Purpose: To test the hypothesis that a commitment warning (admonition that a decision will be binding) will influence behavior of young children on immediate and unrelated decisions.
Subjects: 104 preschoolers, ages 47 to 72 months: 33 white Americans, 26 black Americans, 45 Australians.
Methods: The study was conducted in three nursery schools. In return for helping the experimenter, children were allowed to choose between two toys as a gift. In the commitment condition, children were told to "think about it very carefully, because once you choose one, you won't be able to change your mind." Children in the noncommitment condition were told that they would be allowed to change their minds and exchange the chosen toy any time during the course of the experiment. Measures were taken of delay in announcing the choice, and magnitude of postdecisional bolstering ("spreading") of choice alternatives. Children were subsequently presented with two separate and unrelated decision problems; the Party Dilemma and Mischel's Candy Dilemma.
Findings: In comparison with children in the noncommitment condition, commitment children (a) took longer to announce their choice of a gift toy; (b) showed less tendency to bolster the choice alternatives postdecisionally; and (c) were more likely to make decisive, creative, and committing responses on an unrelated choice dilemma.
Duration: June 1969-May 1970.
Investigator(s): Leon Mann, Ph.D., Assistant Professor of Social Psychology, Harvard University, Cambridge, Mass. 02138.
Cooperating group(s): Foundations' Fund for Research in Psychiatry;

National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned.

Social

26-FA-1 SURVEY OF STUDENT ATTITUDES

Purpose: To explore social relations and institutional attitudes of girls in a New York State training school.
Subjects: 76 students at the Wynantskill Center for Girls, Wynantskill, N. Y.
Methods: Personal interviews with students supplemented by institutional records.
Duration: January 1968-January 1970.
Investigator(s): Harry Posman, Ph.D., Director, Office of Social Research and Program Information, New York State Department of Social Services, 1450 Western Ave., Albany, N. Y. 12203.
Publications: Departmental report in preparation for 1970 publication.

26-FA-2 USE OF THE PEER GROUP IN THE SOCIALIZATION OF THE ISOLATE CHILD

Purpose: To determine whether existing information on the amounts and kinds of positive social rewards dispensed by preschool-age children to each other can be applied to modify the classroom behaviors of the isolate (noninteracting) child in the nursery school.
Subjects: Isolate children selected from preschool classrooms.
Methods: The basic experimental design involves the manipulation of subgroups within the general free play situation of the preschool class in order to maximize the degree to which the child is naturally the recipient of positive social reinforcement from others.
Duration: December 1969-November 19[illegible].
Investigator(s): Cathryn A. Levison, M.D., Assistant Professor, Department of Psychiatry, University of Chicago, Chicago, Ill. 60637.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-FA-3 COMMUNITY COHESIVENESS, COMMUNICATION PATTERNS, AND DEVIANT BEHAVIOR

Purpose: To examine the relationship between cohesiveness, adults' knowledge of adolescent behavior, adolescents' knowledge of peer behavior, willingness of adults to intervene upon witnessing a deviant act, and deviant behavior.
Subjects: 2,000 adolescents and 2,000 adults in eight distinctive neighborhoods.
Methods: Although cohesiveness has been viewed as an important variable in understanding societal disorganization, factors leading to it are not completely understood, and it cannot be assumed that deviant behavior is a direct function of this cohesiveness. To the degree that a neighborhood is seen as an entity, societal institutions may react to situations and individuals from these neighborhoods in specific ways, thereby influencing

the definition of deviance; the reactions of social institutions to individuals so identified can affect future relationships between these individuals and other social institutions. Present research employs surveys of neighborhood residents to examine impact of dwelling types and other neighborhood characteristics on specified variables. Surveys of teachers and police servicing these areas are used to determine the "image" of the neighborhood in the surrounding community's view.
Duration: June 1968-September 1971.
Investigator(s): James C. Hackler, Ph.D., Associate Professor, Department of Sociology, University of Alberta, Edmonton 7, Alberta, Canada.
Cooperating group(s): Canada Council.
Publications: In Proceedings of the Western Association of Sociology and Anthropology, Brig Card (Ed.). Edmonton: University of Alberta, 1969.

26-FA-4 DEVELOPMENTAL CONFORMITY

Purpose: To determine age differences in conformity to better build treatment programs around social imitation models.
Subjects: 150 public school children in grades two to six.
Methods: Asch-type situation.
Duration: April-May 1970.
Investigator(s): Barbara R. Bishop, Ph.D., and Linda Beckman, Ph.D., Staff Psychologists, Children's Unit, Camarillo State Hospital, Camarillo, Calif. 93010.
Cooperating group(s): Marina West School, Oxnard, Calif.
Publications: To submit to Developmental Psychology.

26-FC-1 PREDISPOSITION TO DRUG ABUSE AMONG STUDENTS AS A FUNCTION OF WITHIN-FAMILY HISTORY AND BEHAVIOR

Purpose: To identify the differences in childrearing techniques that are associated with the risk of drug abuse among children, when socioeconomic variables are controlled.
Subjects: Approximately 200 families.
Methods: Intensive interviews, observations, readings, and on a sub-sample, observations using controlled stimuli.
Findings: Important differences in a pretest suggest the determining role of sex-role diffusion and handling of authority, etc.
Duration: June 1968-June 1971.
Investigator(s): Richard H. Blum, Ph.D., Project Director, and Eva M. Blum, Ph.D., Project Codirector, Institute for the Study of Human Problems, Stanford University, Stanford, Calif. 94305.
Cooperating group(s): Bureau of Narcotics and Dangerous Drugs.
Publications: Publication planned in a psychological journal.

26-FC-2 CHARACTERISTICS OF YOUTHFUL DRUG USERS AND THEIR FAMILIES

Purpose: To determine the personal and family characteristics of Jewish drug users under age 21.
Subjects: Those young people who are already known to the Jewish Family Service agencies in the seven-state region served by this agency: Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.
Methods: A schedule is sent to the existing Jewish Family Service agencies

asking for information about child and family. Data will be organized and analyzed by the Jewish Children's Home Service. Reports will deal with families already known to the cooperating agencies.
Findings: So far, more girls than boys have been reported by the cooperating agencies.
Duration: November 1969-January 1971.
Investigator(s): Viola W. Weiss, M.S.S.A., Director of Community Services, Jewish Children's Home Service, P. O. Box 15225, 5342 St. Charles Ave., New Orleans, La. 70115. (Reported by Sanford Weiss, M.S.S.A., Executive Director, Jewish Children's Home Service.)
Publications: Mimeographed report will be available after study is completed.

26-FC-3 ADOLESCENT DRUG USE

Purpose: To ascertain prevalence and extent of use of narcotics, barbiturates, hallucinogens, amphetamines, marijuana, alcohol, inhalants, and tobacco among adolescents.
Subjects: 2,634 adolescents representing 80 percent of a 10 percent random sample of all public high school students in Multnomah County, Ore.
Methods: Random sample was invited to participate on a voluntary and anonymous basis. An oral questionnaire was administered to large groups, and answer sheets were converted to IBM cards. Correlations were then computed for (1) age, sex, year in school; (2) stated honesty of students; (3) social environment and reported drug use; and (4) reportedly used drugs. More complex analyses of data are planned.
Findings: Reported drug use is related to age, sex, stated honesty, and social environment. There are strong positive correlations among daily use of tobacco and any use of marijuana, hallucinogens, amphetamines, and narcotics.
Duration: January 1968-June 1970.
Investigator(s): Kit G. Johnson, M.D., formerly Resident in Public Health; Morris Weitman, Ph.D., Professor of Psychology, Portland State University, and Research Consultant; and Robert Scheible, B.S., Statistician, Multnomah Department of Medical Services, Portland, Ore. 97201.
Cooperating group(s): Portland School District No. 1; Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Series of four papers submitted to American Journal of Public Health, 1969.

26-FC-4 SOCIAL CORRELATES OF SMOKING BEHAVIOR IN SEVEN HIGH SCHOOLS

Purpose: To gather baseline data on high school smoking, with focus on starters, quitters, committed nonsmokers, and committed smokers.
Subjects: 3,000 public and parochial high school students in Milwaukee, Wis.
Methods: A 30-minute questionnaire, administered to all students, was supplemented by interviews with a small subsample.
Duration: Fall 1968-Summer 1970.
Investigator(s): Edward Wellin, Ph.D., Professor of Anthropology, University of Wisconsin, Milwaukee, Wis. 53201.
Cooperating group(s): School of Social Welfare, University of Wisconsin, Milwaukee.
Publications: Paper(s) to be submitted to American Journal of Public Health and other journals, 1970.

26-FC-5 PSYCHOLOGICAL FACTORS IN CIGARETTE SMOKING

Purpose: To study the psychodynamics of smoking and to learn why smokers smoke and nonsmokers do not in order to obtain information with which to guide development of more effective antismoking educational campaigns; to study the relationships among personality, smoking, and academic performance.
Subjects: 15,000 students in grades 4 to 12.
Methods: Questionnaires and peer ratings are used to obtain information about personality and cigarette smoking. Academic performance is measured in terms of grade point average.
Findings: Smokers and nonsmokers differ both with respect to personality and academic performance. Personality correlates of academic performance have been identified.
Duration: July 1968-July 1973.
Investigator(s): Gene M. Smith, Ph.D., Assistant Professor of Psychology, Harvard Medical School, and Psychologist, Departments of Anesthesia and Psychiatry, Massachusetts General Hospital, Boston, Mass. 02114.
Cooperating group(s): American Cancer Society; Council for Tobacco Research-U.S.A.; Esso Education Foundation.
Publications: Journal of Consulting and Clinical Psychology.

26-FC-6 PATTERNS OF ILLICIT DRUG USAGE IN COLLEGE STUDENTS

Purpose: To determine the number and characteristics of drug users in a college population and to define the types of drugs used.
Subjects: Undergraduate and graduate students from the State University of New York.
Methods: Students devised and administered anonymous questionnaires.
Findings: Patterns and amount of drug usage and a correlation with demographic and personal variables have been established.
Duration: May 1969-January 1970.
Investigator(s): Jeffrey Anker, M.D., Intern, Doris H. Milman, M.D., Associate Professor of Pediatrics, Stuart Kahan, Ph.D., Associate Professor of Computer Science, and Carlo Valenti, M.D., Associate Professor of Obstetrics and Gynecology, State University of New York Downstate Medical Center, Brooklyn, N. Y. 11203.
Publications: To be published in medical journals and possibly as a monograph.

26-FC-7 A STUDY OF TEENAGE DRUG BEHAVIOR

Purpose: To describe and analyze individual changes and trends in behavior over time with regard to various kinds of drugs, and thus to contribute to programs of education and intervention related to drug abuse.
Subjects: All students in selected grades of 12 east and west coast metropolitan area junior and senior high schools and students in the same grades from 24 schools across the country.
Methods: Students in metropolitan area schools are given self-administered questionnaires about drug behavior and its correlates in two waves of interviews separated by a period of two years. Questionnaires are also given to second group of students in order to measure trends in drug behavior and attitudes and to provide a meaningful basis for comparison. Drug behavior is analyzed in terms of the personal, familial, social, and economic factors that distinguish users from nonusers, as well as the institutional and group influences within schools that may contribute to

or prevent experimentation with drugs.
Duration: 1970-1974.
Investigator(s): Jack Elinson, Ph.D., Professor of Sociomedical Sciences, Columbia University School of Public Health, New York, N. Y. 10032.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

26-FC-8 YOUTH STUDY

Purpose: To determine prevalence of drug abuse among in-school adolescents; to study other behaviors and characteristics associated with the use of psychotropic drugs.
Subjects: Stratified probability sample of 2,000 students in grades 7 through 12 in towns of Arlington, Dennis, Yarmouth, Westwood, and Falmouth, Mass.
Methods: Pretested questionnaire administered by a research team from the Massachusetts Department of Mental Health.
Findings: Overall 25 percent drug use at high school level. Many other nonconforming behaviors associated with drug abuse.
Duration: February 1969-continuing.
Investigator(s): Victor A. Gelineau, Ph.D., Director of Research, Malcolm Johnson, M.A., Supervisor of Research, and Doris Pearsall, A.B., Research Assistant, Division of Drug Rehabilitation, Massachusetts Department of Mental Health, 80 Boylston St., Boston, Mass. 02116.
Publications: Results to be published in professional journals.

SPECIAL GROUPS OF CHILDREN

Physically Handicapped

26-GC-1 INTERPERSONAL ASPECTS OF CHILD CEREBRAL PALSY THERAPY

Purpose: To delineate the different patterns of interactions to which young cerebral palsied children respond and the variety of ways in which they respond to the different communications they experience. These facts can make an important contribution to therapists' ability to identify and understand the habitual response patterns of the child and to utilize this information in choosing the most effective approach.
Subjects: 10 children who are new cases accepted for full treatment at Spastic Children's Clinic and Preschool, Seattle; their respective mothers and therapists.
Methods: Recording of nonverbal behavior codings by highly trained observers simultaneously with recording verbal interchanges of subjects; ratings of four-second intervals on the basis of status, affect, and involvement; assessment of patterns and sequences by means of contingency analysis.
Duration: October 1969-September 1972.
Investigator(s): Kate L. Kogan, Ph.D., Associate Professor of Psychiatry, University of Washington Medical School, and Nancy Tyler, B.S., Senior Occupational Therapist, Spastic Children's Clinic and Preschool, Seattle, Wash. 98105.
Cooperating group(s): National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Reports to be published in professional journals; copies of papers describing methodology are available from investigators.

26-GC-2 REHABILITATION PROBLEMS OF PERTHES' DISEASE AMONG CHILDREN AND ADOLESCENTS IN ISRAEL

Purpose: To study the physical and emotional sequelae of Perthes' disease, a condition which usually requires up to three years of limited movement during childhood.
Subjects: Over 250 children comprising all cases of Perthes' disease in Israel; control group of 60 children who have never been ill.
Methods: Orthopedic and radiological followup examinations; psychosocial investigation; and test battery including Vineland Social Maturity Scale, Manifest Anxiety Scale, behavior, motility, and body image scales, and a sentence completion test for coping.
Duration: March 1969-March 1971.
Investigator(s): A. Axer, M.D., Director, Orthopedic Department, Assaf Harshe Hospital, Zrifin; and E. Chigier, M.D., Research Pediatrician, Foundation For Handicapped Children (ILAN), 9 Gordon St., Tel-Aviv, Israel.
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Final report tentatively planned for October 1971.

26-GC-3 CHILDREN'S RESPONSES TO CHRONIC ILLNESS: A STUDY ON DRAWINGS OF MALE, FEMALE, AND FAMILY FIGURES

Purpose: To examine children's reactions to chronic physical illness as reflected in their drawings.
Subjects: Children, ages 4 to 18, admitted to the Stanford Children's Convalescent Hospital since September 1966 with various diseases and physical disabilities such as asthma, rheumatoid arthritis, cystic fibrosis, etc.; comparison groups of educationally handicapped and normal children.
Methods: Children's drawings of male, female, and family figures are scored by the Harris-Goodenough norms on three reaction indicator scales and on scales devised to measure distortion of body parts and dimensions. Clinical ratings are also made. Hospitalized children are compared with normal and educationally handicapped children and with each other, with special attention to asthmatic and rheumatoid arthritis groups.
Duration: September 1966-continuing.
Investigator(s): Helen H. Glaser, M.D., Assistant Medical Director, and Pauline Austin Adams, Ph.D., Psychologist, Stanford Children's Convalescent Hospital; Sara Fisher, Ed.D., Associate Director, Peninsula Children's Center, Palo Alto, Calif. 94304.

26-GE-1 EVALUATION OF AN EARLY INTERVENTION PROGRAM FOR NEUROLOGICALLY IMPAIRED CHILDREN AND THEIR FAMILIES

Purpose: To evaluate and test the efficacy of a behavioral science approach which works simultaneously with infants and their families.
Subjects: 25 neurologically impaired children ages 12 months to 3 years, and their parents.
Methods: Each member of the Project team, the educator, public health nurse, physical therapist, speech therapist, and social worker, will assess the child and his parents at intake using the procedures that are most commonly used in that discipline. These data are recorded on schedules developed for this purpose by the United Cerebral Palsy of Queens research staff. Monthly staff meetings are scheduled at which personnel report for research analysis critical incidents in the growth of the child and his family and an analysis of the factors which precipitated and contributed to these developments. In May 1970 assessment is repeated for each exceptional child and his family. The pre- and post- data obtained through this means are compared and analyzed to ascertain growth.
Findings: Youngsters exposed to program were far better-prepared for and are making more constructive progress in their educational programs than comparable youngsters who entered regular program without benefit of infant's intervention.
Duration: September 1967-August 1970.
Investigator(s): Daniel Wieder, M.A., Executive Director, United Cerebral Palsy of Queens, 82-25 164th St., Jamaica, N. Y. 11432.
Cooperating group(s): Association for the Aid of Crippled Children.
Publications: Publication planned.

26-GE-2 REMEDIATION OF COORDINATION DEFICITS IN YOUTH WITH MINIMAL CEREBRAL DYSFUNCTION

Purpose: To develop an effective program of remedial exercises for children presenting problems of minimal brain damage; to refine the

Devereux Test of Extremity Coordination, a test which uses fine motor movement exercises to recognize minimal brain damage.
Subjects: 180 children from the Devereux Schools, ages 8 to 18, I.Q.'s ranging from 70 to 125.
Methods: Sample is comprised of three diagnostic groups of 60 students each: Group 1 has students with known neurological dysfunction, Group 2 has students with suspected neurological dysfunction, and Group 3 has students diagnosed as normal with respect to cerebral functioning. All students were pretested using the Devereux Test of Extremity Coordination (DTEC), a motor steadiness battery, the MacQuarrie Test of Mechanical Ability, the Devereux Child or Adolescent Behavior Rating Scale, and the California Achievement Test. Twenty students from each group were videotaped during performance on the DTEC to allow for detailed analysis of movement syndromes. At the conclusion of pretesting, "triplets" (three students matched according to age, intelligence, and movement profile, as determined by pretesting) were formed within each of the three diagnostic groups, thus providing 20 sets of triplets in each diagnostic group. In every triplet group, each member was assigned to one of three exercise procedures for a nine-month period. Exercise programs are: (1) Basic Exercises--a program designed to improve general awareness of body parts and gross motor skills; (2) Remedial Exercises for Fine Motor Skills--a program designed to remediate deficits in fine motor coordination and balance; and (3) Exercises for Physical Fitness--a program of daily physical fitness exercises and recreational activities. Following the nine months of participation in these various exercise programs, students will be posttested with the same battery of movement tests. Comparison of pre- and posttest scores will demonstrate the effectiveness of the three exercise programs. Videotape analysis of the DTEC will allow documentation of movement difficulties common to children with minimal cerebral dysfunction and will suggest diagnostic procedures for evaluating these children.
Duration: June 1969-May 1971.
Investigator(s): George E. DeHaven, R.P.T., Chief Physical Therapist, The Devereux Foundation, Institute for Research and Training, Devon, Pa. 19333. (Reported by Jeffrey Leiphart, Research Psychologist, The Devereux Foundation.)
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Publications indeterminable at this time; information available from The Devereux Foundation.

26-GE-3 EDUCATION OF PHYSICALLY HANDICAPPED CHILDREN IN ORDINARY PRIMARY SCHOOLS

Purpose: To ascertain how many physically handicapped children, other than the minimally handicapped, are in ordinary primary schools in certain selected areas and how many of them are succeeding academically and socially; to determine to what variables their success or lack of it can be related; to discover the main problems facing integration of handicapped children into ordinary schools and the possible solutions.
Subjects: First phase: 60 physically handicapped children, ages 7 to 10, in ordinary primary schools, and 120 controls, matched for sex and age and in same class; second phase: a smaller group of more severely handicapped young children, also attending ordinary schools; third phase: physically handicapped primary school children in rural areas.
Methods: Records; interviews with teachers and parents of handicapped children and controls; questionnaires; individual and group tests of reading, social adjustment, etc.; possibly classroom observation.
Duration: July 1969-August 1972.
Investigator(s): Elizabeth M. Anderson, M.A., Research Officer, Depart-

ment of Child Development, Institute of Education, London University, 57 Gordon Sq., London W.C. 1, England.
Cooperating group(s): National Fund for Research into Crippling Diseases.
Publications: Monograph or book planned.

Mentally Retarded

26-HB-1 WHO ARE THE RETARDED?--MULTIPLE CRITERIA APPLIED TO CHILDREN IN EDUCABLE CLASSES

Purpose: To determine the extent to which placement in classes for the educable mentally retarded is based on I.Q. or on irrelevant problems.
Subjects: 11-year-old children in classes for the educable mentally retarded; normal controls matched for sex and socioeconomic status, all in a five-county area of Pennsylvania.
Methods: Test battery including Slosson Test of Intelligence, ITPA auditory recognition and verbal encoding, Test of Social Inference (Leland et al.), and Temple Informal Reading Inventory.
Findings: In one sample, application of the four criteria reduced the number of educable mental retardates from 45 to 5.
Duration: January-September 1970.
Investigator(s): Mortimer Garrison, Jr., Ph.D., and Donald D. Hammill, L.J.D., Professors, Temple University College of Education, Philadelphia, Pa. 19122.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Journal publication and monograph planned.

26-HC-1 OCCUPATIONAL ASPIRATIONS OF THE EDUCABLE MENTALLY RETARDED

Purpose: To determine whether educable mentally retarded boys in special classes were realistic with regard to occupational aspirations.
Subjects: 40 Negro boys and 43 white boys selected from special classes for educable mentally retarded children in 15 Durham, N. C. city and county schools.
Methods: A questionnaire was administered to the subjects, whose I.Q. range was 50 to 75 with a mean I.Q. of 63.83 and standard deviation of 20.32 for white boys and 66.25 with a standard deviation of 15.13 for Negro boys. The mean C.A. was 12.6 for Negro boys and 12.5 for white boys. Subjects were asked to state what kind of jobs they would like to have when they grow up, and the kind of jobs they thought they would have when they grow up. Responses to the questions were unstructured. Each question was read to the subjects individually, and responses were recorded on the appropriate form. When necessary, the investigator reread questions, but sought to avoid influencing a given response.
Findings: Data suggest that, particularly when asked what occupation they actually expect to obtain, the majority of the boys were realistic in their choice of occupations. Both groups expressed realistic expectations regarding future occupations.
Duration: Completed.
Investigator(s): Octavia Bowers Knight, Ph.D., Director of Special Education and Associate Professor of Education, North Carolina Central University, Durham, N. C. 27707.
Publications: Plan to submit to appropriate journal for publication. Abstract of study available from Dr. Knight.

26-HC-2 SUICIDAL TENDENCIES AMONG INSTITUTIONALIZED RETARDATES

Purpose: To study the nature and types of suicidal attempts made by institutionalized retardates.
Subjects: All residents at Willowbrook State School who are known to have attempted to commit suicide.
Methods: Data, including case studies, are being accumulated.
Findings: Suicidal attempts are relatively rare in this group.
Duration: February 1969-March 1970.
Investigator(s): Manny Sternlicht, Ph.D., Chief of Habilitation Services, Willowbrook State School, Staten Island, N. Y. 10314.
Publications: Publication planned.

26-HC-3 AUDIOLOGICAL ASSESSMENT OF THE MENTALLY RETARDED

Purpose: To determine the incidence of various types and extents of hearing impairment in a mentally retarded population; to determine the most effective procedures for audiological assessment, including pure tone and speech.
Subjects: 818 mentally retarded residents of the State Training School at American Fork, Utah, with ages ranging from 6 to 60 and I.Q.'s from 0 to 80.
Methods: This is the second phase of a three part project. Phase One involved a comparison of the relative efficacy of routine hand-raising response with special techniques involving filmstrip, motion picture, and eye puff reinforcers of responses. (See Research Relating to Children, Bull. No. 20-HP-1.) Present research on the types and extents of hearing impairments constitutes the second phase and involves audiometric testing of all subjects. Phase Three is concerned with producing a suitable picture discrimination for nonoral retardates.
Findings: Test results to date indicate that 5.9 percent of subjects have medically significant hearing losses, and 26.2 percent of those have losses of more than 25 decibels at one or more frequencies.
Duration: 1966-1970.
Investigator(s): Ross M. Weaver, Ph.D., Director of Clinical Audiology, Brigham Young University, Provo 84601, and Audiological Consultant, Utah State Training School, American Fork, Utah.

26-HD-1 INVESTIGATION OF FAMILIES WITH TWO OR MORE CHILDREN WITH MENTAL RETARDATION

Purpose: To investigate the causes of familial retardation which are probably based on only partially divulged genetic or biochemical circumstances, but which may be due to biochemical abnormalities in the mother.
Subjects: Approximately 100 families, each of which contains two or more retarded siblings.
Methods: Blood and urine samples are studied for known carbohydrate, protein, and lipid abnormalities. In addition, family pedigrees are studied in order to estimate consanguinity or other genetic influences which may be responsible for retardation.
Duration: January 1969-continuing.
Investigator(s): Harry A. Waisman, M.D., Ph.D., Professor of Pediatrics, Kennedy Laboratories, University of Wisconsin Medical Center, Madison, Wis. 53706.
Cooperating group(s): Central Wisconsin Colony.

26-HJ-1 DEVELOPMENTAL TRAINING FOR THE SEVERELY RETARDED

Purpose: To change the orientation of a state institution for the multiply handicapped from one of nursing care to one which includes child training as a major aspect of its services; specifically, to develop functional specific training programs in self-help, communication, perceptual-cognitive, and other skills.
Subjects: 70 multiply handicapped retarded children and youth in a small state institution for the retarded with a population of about 200.
Methods: Development of hierarchies of skills in the specific training areas; development and research of training procedures which involve modified operant techniques, programmed learning, and selected Montessori materials; training of nonprofessionals; and evaluation of results with each subject and with nonprofessionals, and impact on the institution.
Findings: Effective training programs have been developed in the areas of self-feeding, receptive language, expressive language, and perceptual-cognitive skills for multiply handicapped children.
Duration: June 1967-May 1970.
Investigator(s): T. F. Naumann, Ph.D., Professor of Psychology, Central Washington State College, Ellensburg, Wash. 98926.
Cooperating group(s): Yakima Valley School, Selah, Wash. 98942.
Publications: In Proceedings of the 9th and 10th Annual Washington State Research Meetings, 1969 and 1970, Department of Institutions, Olympia, Wash.

26-HK-1 THE PARENT AS THERAPIST WITH PRECISION TECHNIQUES OF BEHAVIORAL MODIFICATION AS APPLIED TO MENTALLY RETARDED, DISTURBED CHILDREN

Purpose: To teach the application of modified techniques of operant conditioning to groups of parents of mentally retarded children so as to increase adaptive behaviors and/or decrease maladaptive behaviors in their children.
Subjects: Parents of mentally retarded and/or disturbed children with I.Q.'s ranging from below 10 to low-average, and ranging in age from one and one-half to 16 years.
Methods: Parents meet in groups of six to eight once weekly for a 10-week period. They are instructed in the identification and recording of behaviors which are considered to be important in increasing the child's adaptive and self-initiating behaviors. Suitable consequences are selected which will accelerate positive behavior and/or decelerate negative behavior. Results are discussed at weekly sessions and are plotted on individual graphs. Parents are taught principles of operant conditioning, and the amount of learning that has taken place is assessed before and at the end of the group meetings. Attitude changes that have occurred in the parents are also assessed, mainly from the point of view of changes in self-concept that are presumed to have taken place as a result of group pressures and parent involvement in implementing behavior change.
Duration: April 1969-April 1972.
Investigator(s): W. A. Zaleski, M.D., Director, and Suzanne Jegard, M.A., Psychologist-in-Charge, Alvin Buckwold Mental Retardation Unit, University Hospital, Saskatoon, Saskatchewan, Canada.
Cooperating group(s): Department of National Health and Welfare of Canada.
Publications: Publication planned.

Gifted

26-IA-1 A FOLLOWUP SURVEY OF THE EARLY ENTRANCE TO KINDERGARTEN PROGRAM IN ST. LOUIS PARK SCHOOLS

Purpose: To determine how gifted children progressed academically, socially, emotionally, and intellectually many years after being enrolled a year early in kindergarten.
Subjects: 77 children from St. Louis Park, identified as intellectually gifted at age four and one-half.
Methods: Behavior and achievement data were gathered by school psychologists who reviewed test scores, interviewed teachers, and interpreted case records including previous teacher comments. A special interview and rating form was devised to organize and interpret data operationally.
Findings: Early entrants to kindergarten performed better than average on all variables, although intellectual and academic performance was higher than nonacademic and social performance. The older the gifted student, the more superior was his performance compared to the class average.
Duration: November 1968-May 1969.
Investigator(s): Stuart Dansinger, M.A., Ed.S., and Mildred Huttenmaier, M.A., School Psychologists, St. Louis Park Schools, St. Louis Park, Minn. 55426.
Publications: Mimeographed report.

Emotionally Disturbed and Mentally Ill

26-JB-1 EARLY OBJECT LOSS AND ADOLESCENT DEPRESSION

Purpose: To continue previous research, findings of which suggest that trauma in first years of life is related to depression in adolescence. (See Research Relating to Children, Bull. No. 18-L-26.)
Subjects: Adolescents, ages 14 to 17, who are patients at the University of Southern California Medical Center because of attempted suicide.
Methods: Clinical and statistical.
Findings: Tentative findings indicate a correlation between early trauma and adolescent depression.
Duration: July 1968-continuing.
Investigator(s): Joseph D. Teicher, M.D., Professor of Psychiatry, and N. Lionel Margolin, M.D., Assistant Professor of Psychiatry, University of Southern California School of Medicine, Los Angeles, Calif. 90033.
Publications: Publication planned.

26-JB-2 PREGNANCY AND BIRTH COMPLICATIONS OF SERIOUSLY, MODERATELY, AND MILDLY BEHAVIORALLY DISTURBED CHILDREN

Purpose: To investigate the relationship between pregnancy and birth complications and later behavior disturbances.
Subjects: 61 disturbed children; 305 controls.
Methods: Birth data on all subjects were collected blind, recorded, grouped, analyzed, and correlated.

Findings: Approximately 75 percent of the seriously disturbed, and 50 percent of the moderately disturbed children exhibited one or more serious birth complications as compared with 30 percent of the controls.
Duration: April 1969-March 1970.
Investigator(s): Thomas F. McNeil, Ph.D., Assistant Professor, Vanderbilt University, and Ronald Wiegerink, Ph.D., Chairman and Assistant Professor of Special Education, Peabody College, Nashville, Tenn.
Cooperating group(s): Kennedy Center, Peabody College.
Publications: Plan to submit for publication.

26-JB-3 HYPERKINETIC CHILD STUDY I: INVESTIGATION OF A POSSIBLE HYPERACTIVE-HYPERREACTIVE DIMENSION

Purpose: To investigate a possible hyperactive-hyperreactive dimension of hyperkinesis: hyperactivity involves maintenance of a high level of activity independent of environmental stimulation; hyperreactivity involves excessive activity in response to salient environmental stimulation.
Subjects: 40 males, ages 6 to 13, referred to Malcolm Bliss Mental Health Center because of problems involving hyperkinetic activity. Control group of 40 normal males matched in age and socioeconomic class.
Methods: Each subject is asked to perform several school-like tasks, while alone, in two conditions: a distraction room containing highly salient stimuli (toys, picture books, decorations, punching bag, rubber ball, recorded sounds of children playing, etc.), and a nondistraction room containing only a table and chair. Behavioral observations are made through a one-way mirror. Activity level and task achievement are recorded separately for each room and contrasted. Experimental subjects whose activity level varies greatly between the two conditions will be considered hyperreactive; those whose activity level varies little will be considered hyperactive. Results obtained in the experimental rooms will be compared to anamnesis, physical and perceptual measures, parents' ratings of current activity, psychiatrists' observations, and response to a brief reinforcement procedure.
Findings: On the basis of minimal analysis of data obtained from 14 subjects, it appears that the distracting and nondistracting experimental conditions have been satisfactorily established.
Duration: 1969-late 1970.
Investigator(s): John A. Stern, Ph.D., Professor of Psychology, and Director of Research, Malcolm Bliss Mental Health Center, and Michael Stern, Ph.D., Assistant to Director, Department of Psychology, Malcolm Bliss Mental Health Center, Washington University, St. Louis, Mo. 63104.
Publications: Publication planned on completion of study.

26-JB-4 AN EXAMINATION OF THE BENDER GESTALT BACKGROUND INTERFERENCE TECHNIQUE WITH HYPERACTIVE AND PERCEPTUALLY IMPAIRED CHILDREN

Purpose: To evaluate the usefulness of the Bender Gestalt background interference technique in diagnosing hyperactive and perceptually impaired children.
Subjects: 53 each of normal and hyperactive elementary age boys; 74 emotionally disturbed institutionalized children.
Methods: The background interference technique was used with all children. The emotionally disturbed and hyperactive children were compared with each other and with the normal subjects, who acted as controls. In addition,

children were given extensive psychological and neurological testing for the derivation of other relationships.
Findings: Results indicate significant differences between perceptually impaired and nonimpaired emotionally disturbed children; also, there were significant differences between the hyperactive and control groups.
Duration: September 1968-June 1970.
Investigator(s): Benjamin S. Hayden, Ph.D., Coordinator of Research, and Max Talmadge, Ph.D., Director of Psychology, Astor Home, Rhinebeck, N. Y. 12572; Frank E. Clarkson, Ph.D., Principal Psychologist, Worcester State Hospital, Worcester, Mass. 01603.
Cooperating group(s): New York State Board of Regents; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish.

26-JC-1 PSYCHOSOCIAL EFFECTIVENESS OF CHILDREN AND PARENTS AS RELATED TO REFERRAL FOR PSYCHOLOGICAL PROBLEMS, REFERRAL PROBLEMS, AND SOCIOECONOMIC LEVEL

Purpose: To integrate behavioral and person-impression measures in assessing children's family and school behavior.
Subjects: 90 children with nervous psychological problems and 30 normal controls, all ages 8 to 13; their families and teachers.
Methods: Family interaction is analyzed through videotapes, questionnaires, adjective ratings, and communication tasks. School behavior is assessed through teacher and observer adjective ratings and teacher questionnaires. Three types of intervention are utilized and outcome assessed.
Duration: 1963-1970.
Investigator(s): Jaques Kaswan, Ph.D., Professor of Psychology, Ohio State University, Columbus, Ohio 43210; Leonore Love, Ph.D., Lecturer in Psychology, and Elliot Rodnick, Ph.D., Professor of Psychology, University of California, Los Angeles, Calif. 90024.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Monograph in preparation, 1970.

26-JD-1 THE RELATIONSHIP OF SOCIAL CLASS AND PARENTAL DISCIPLINE PRACTICES TO PSYCHOSOMATIC ILLNESS IN YOUNG ADULTS

Purpose: To determine whether a relationship exists between the prevalence of psychosomatic illness and social class, whether there is a relationship between the prevalence of psychosomatic illness and socialization practices, and the amount of variance accounted for in psychosomatic illness by these variables.
Subjects: 513 male and 645 female white senior high school students from unbroken families.
Methods: Data collected on subjects included socioeconomic status, incidence of 25 psychosomatic ailments, family size and birth order, perceived parental warmth, and information on childrearing practices, i.e., perceived and actual familial power structure, restrictiveness, and maternal and paternal punishment types.
Findings: Social class was unrelated to total psychosomatic score for males, but socioeconomic status and combined education of parents were related to females' psychosomatic score. While father's education was related to perceived restrictiveness for both sexes, none of the indices of class was related to actual or perceived maternal or paternal dominance, punishment types, or equalitarian parental relationship for

either sex. Also, family size was unrelated to class, total psychosomatic score, individual psychosomatic ailments, or any of the socialization variables. Several of the socialization and perceptual variables accounted for 13.7 percent of the variance with respect to total psychosomatic score in the male population and for 11.7 percent of the variance among the females.
Duration: Not reported.
Investigator(s): Roland J. Derenne, Assistant Professor of Sociology, California State College, Fullerton, Calif. 92631.

26-JE-1 THE APPLICATION OF STRUCTURAL THERAPY TO THE RESIDENTIAL TREATMENT OF EARLY INFANTILE AUTISM

Purpose: To investigate the utility of a physically intrusive and structuring approach in the treatment of early infantile autism; to conduct research into the diagnosis and etiology of this disorder.
Subjects: 22 male and female autistic children in a research unit of a state hospital for emotionally disturbed children.
Methods: A careful diagnostic study is made of the prenatal, delivery, and developmental history of each child. Therapists and residential staff are trained in structural therapy. Regular developmental, psychological, and psychiatric evaluations are made of each child, detailed progress notes are kept, and children are followed up after discharge.
Findings: Many children labeled "autistic" are actually suffering various types of developmental or organic handicaps that require special education rather than psychotherapy. Cases of early infantile autism show a favorable response to structural therapy.
Duration: September 1966-September 1971.
Investigator(s): Alan J. Ward, Ph.D., Research and Treatment Director, and H. Allen Handford, M.D., Medical Director, Autistic Children's Unit, Eastern State School and Hospital, Trevose, Pa. 19047.
Publications: Psychological Bulletin, in press, 1970; Schizophrenia 1:4: 243-248, 1969.

26-JF-1 LONGITUDINAL STUDY OF ADOLESCENTS AND THEIR FAMILIES WHO ARE HIGH RISKS FOR SCHIZOPHRENIA

Purpose: To understand the family dynamics and experiential factors that may either lead to or prevent schizophrenia and other psychopathology.
Subjects: Adolescents, ages 14 to 16, and their families.
Methods: Individual and family therapy; various test procedures of individual and family members; predictions; followup interviews.
Duration: 1967-1972.
Investigator(s): Helm Stierlin, M.D., Ph.D., Head, Psychotherapy Unit, Family Studies Section, Adult Psychiatry Branch, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014.

26-JF-2 POSITIVE REINFORCEMENT IN THE CLASSROOM: A GROUP DESIGN FOR SINGLE CHILDREN

Purpose: To help teachers control and teach schizophrenic children without removing them from the classroom or singling them out for special attention.
Subjects: Seven schizophrenic children; ages 9 to 10.

Methods: Operant procedures: positive reinforcement.
Findings: So far very effective.
Duration: February-May 1970.
Investigator(s): Barbara R. Bishop, Ph.D., Staff Psychologist, Children's Unit, Camarillo State Hospital, Camarillo, Calif. 93010.

26-JG-1 EFFECTS OF PARENT GROUP COUNSELING ON CHILDREN WITH SCHOOL ADJUSTMENT PROBLEMS

Purpose: To determine the measureable effects of group counseling on children with school adjustment problems when parents only, child only, or both parents and child were counseled.
Subjects: 47 children, ages 7 to 12 and one-half, referred to the Jane Wayland Child Guidance Center between July 1 and September 30, 1967.
Methods: Fifteen children were randomly assigned to each of the three treatment groups. Child centered parent group counseling was used to treat the parents, and activity group therapy was used for the treatment of the children. Each group met for 90 minutes weekly over a six-month period. A battery of tests was administered, and posttreatment results were compared by a multivariate analysis of covariance using age, grade level, and I.Q. as covariates. Improvement ratings of the child made by the mother, teacher, and counselor were compared using two-tailed test of significance for uncorrelated data. Followup data were reported but not treated statistically.
Findings: Results indicate that inclusion of the parents in the treatment of the child increases the effectiveness of the treatment.
Duration: 1967-not reported.
Investigator(s): George H. Dee, Ph.D., Staff Psychologist, Jane Wayland Child Guidance Center, 1937 W. Jefferson, Phoenix, Ariz. 85009.
Publications: Publication planned.

26-JG-2 CRISIS INTERVENTION IN A CHILD GUIDANCE CLINIC

Purpose: To study the application of crisis intervention as applied in a child guidance clinic.
Subjects: 100 cases handled in the usual manner at the Tucson Child Guidance Clinic, and 100 cases in which crisis intervention is the primary theory utilized.
Methods: Families in both groups are asked to complete forms and the Family Concept Q-Sort, as developed by Dr. Van der Veen, at scheduled times. Project families are asked to complete the data forms prior to seeing a clinician, after eight weeks, and after nine months. Control families are asked to complete the forms initially, after the waiting list, after eight weeks, and after nine months. Data on each family over time and project data will be analyzed in relation to the data on the control cases.
Findings: More minority families follow through with service in the project than in the regular service.
Duration: June 1969-May 1971.
Investigator(s): Betty Slaybaugh, M.S.W., Psychiatric Social Work Supervisor, Tucson Child Guidance Clinic, 1415 N. Fremont, Tucson, Ariz. 85719.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Articles will be submitted for publication.

26-JG-3 FAMILY THERAPY FOR SCHOOL-AGE STUTTERERS AND THEIR PARENTS

Purpose: To develop a clinical management program for school-age stutterers and to apply this program in the public schools.
Subjects: 10 parent-child dyads; public school children and their parents.
Methods: The clinical management program utilizes parent-child interaction patterns for the derivation of therapeutic strategies. These strategies are then used in bringing about fluency in the child. Once the child is fluent, the parent is introduced into the therapeutic setting in an attempt to have the child's fluency generalize from the therapist to the parent. Parent participation is required.
Findings: Seven of ten children have become fluent with the therapist. Three of these have also become fluent with their parents and were successfully discharged. All subjects except one have shown decreases in stuttering severity and frequency.
Duration: April 1968-April 1971.
Investigator(s): George H. Shames, Ph.D., Professor, and Donald B. Egolf, Ph.D., Assistant Professor, University of Pittsburgh, Pittsburgh, Pa. 15213.
Cooperating group(s): Pittsburgh Public Schools; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned.

26-JG-4 EFFECTS OF TRAINING PARENTS OF EMOTIONALLY DISTURBED CHILDREN IN INTERPERSONAL SKILLS

Purpose: To assess the efficacy of an empathic communication workshop with parents of emotionally disturbed children.
Subjects: Five sets of parents of emotionally disturbed children.
Methods: In a 10-session intensive facilitative communication workshop, the marital pairs concentrated on exploring themselves with emotional proximity, on developing empathic communication with others, and on accurate discrimination of facilitative communication. Pre- and post-workshop tape recordings were made of marital interaction and of parent-child play sessions. Tape segments were rated for parent empathy with one another and with their children.
Findings: The parents improved considerably in marital empathic communication, but with no direct practice in parent-child communication, there was no generalization to empathic communication in parent-child play.
Duration: January 1968-January 1969.
Investigator(s): Robert R. Carkhuff, Ph.D., Director, Center for Human Relations and Community Affairs, American International College, Springfield, Mass. 01109; and Ralph Bierman, Ph.D., Associate Professor of Psychology, University of Waterloo, Waterloo, Ontario, Canada.
Cooperating group(s): The Psychiatric Clinic Inc., Buffalo, N. Y.
Publications: Journal of Counseling Psychology, in press, 1970.

26-JH-1 A LONGITUDINAL PROSPECTIVE STUDY OF THE EFFECTS OF PSYCHOTHERAPY IN CHILDREN

Purpose: To measure longitudinally and prospectively the effects of various modes of psychotherapy in a wide variety of childhood emotional disorders, and to develop techniques for assessment of change secondary to psychotherapy.
Subjects: All children seen diagnostically and assigned to any treatment modality at the Child Guidance Clinic of San Diego starting September 1, 1967. Each subject serves as his own control.

Methods: At time of diagnostic review, the psychopathology is reviewed dynamically and a judgment made as to the developmental phase of difficulty and major intrapsychic defense. For improvement to occur, child must be adjudged to have reached the age appropriate phase of development and to demonstrate age appropriate defenses. All cases are reviewed by one judge (not the therapist) at discharge with review of process material and rated accordingly. Data are stored and accumulated with basic factual data on age, sex, diagnostic problem, position in family, socioeconomic class, and type, duration, and frequency of treatment. When 500 treated cases are established, a control study of untreated diagnosed cases will be collected for diagnostic interviews to ascertain phase and defense without treatment. Five years after termination of treatment, experimental and control groups will be reassessed.
Duration: September 1967-December 1971.
Investigator(s): Thomas L. Trunnell, M.D., Director of Psychiatry, Children's Health Center, and Director, Child Guidance Clinic of San Diego, 8001 Frost St., San Diego, Calif.
Publications: First publication planned for 1972.

26-JH-2 THE EFFICIENCY AND DURATIONAL EFFICACY OF MODELING, SHAPING, AND A COMBINED TREATMENT STRATEGY FOR THE MODIFICATION OF SOCIAL WITHDRAWAL

Purpose: To compare three methods of behavior modification, all of which have been shown to enhance the acquisition of social responsivity in young children; to investigate optimal procedures which may promote early learning of critical social skills in such a way as to efficiently prevent the development of critical behavior deficits.
Subjects: Children, ages three to six, chosen from university-affiliated and private preschools, and identified as social isolates.
Methods: Children who exhibit either an absence or very low levels of social interaction with peers are chosen through a combined process of observational ratings and teachers' reports. These isolates are then randomly assigned, after matching on pretest observational base rates, to one of four conditions: modeling only, shaping, modeling and shaping, or control. The modeling condition consists of a sound film depicting positive social interaction carried out by a number of peer models (see Journal of Applied Behavior Analysis 2:1:15-22, 1969); the shaping condition involves social reinforcement of successive approximations to appropriate interaction; the combined treatment includes the previous two; and the control condition employs an animal film.
Findings: Pilot work demonstrates the efficacy of the first two treatments independently.
Duration: May 1969-June 1970.
Investigator(s): Robert D. O'Connor, Ph.D. Candidate, Department of Psychology, University of Illinois, Champaign, Ill. 61801.
Cooperating group(s): Children's Research Center, University of Illinois; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Doctoral dissertation available through university libraries; publications planned in a psychology journal. Related paper presented at Midwestern Psychological Association Meeting, Chicago, 1969.

26-JH-3 THE EFFECTS OF INTEGRATION OF NORMAL AND EMOTIONALLY DISTURBED PRESCHOOLERS ON SOCIAL INTERACTION AND MODELING

Purpose: To evaluate changes in social behavior of normal and deviant children subsequent to their placement in "mixed" classes of normal and emotionally disturbed preschoolers.

Subjects: 6 four- and five-year-olds diagnosed as ego-deviant; 6 normal four- and five-year-olds.
Methods: In Phase I, time-sampling observations of social interaction, using Chess's coding system for observing nursery school behavior, are taken for all subjects. Phase II consists of reinforcing cooperative behavior using a dyad of one normal and one deviant child in a game situation. Phase III consists of a second series of time-sampling observations of social interaction. It is predicted that the experimental group, consisting of the three deviant children receiving the treatment described in Phase II, will show increases in social interaction when contrasted to the three deviant controls who did not receive treatment.
Duration: February-May 1970.
Investigator(s): Leslie L. Segner, Ph.D., Instructor in Psychology, and James Annicchiarico, Ph.D., Postdoctoral Fellow in Child Clinical Psychology, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): John F. Kennedy Child Development Center, Denver.
Publications: Probably American Journal of Orthopsychiatry.

26-JH-4 PSYCHOPHARMACOLOGY IN CHILDREN AND ADOLESCENTS

Purpose: To study dosages and applications of established and novel psychoactive drugs in children and adolescents with mental disorders.
Subjects: Children, ages 5 to 16, in a mental health clinic.
Methods: Drug compounds of diverse applicability are used in crossover studies involving varied dosages and fixed periods.
Duration: Spring 1969-1974.
Investigator(s): R. Simeon, M.D., Assistant Professor, Ruth LaVietes, M.D., Associate Professor, and Max Fink, M.D., Professor, Department of Psychiatry, New York Medical College, New York, N. Y. 10029.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

26-JH-5 INVESTIGATION OF STUTTERERS: EVALUATION OF AN ECONOMIC TREATMENT

Purpose: To evaluate the therapeutic effects of a self-help method for stutterers which utilizes tape recorders of the language learning type with tapes especially prepared for home use and requiring only occasional supervision by a speech therapist; to study the perceptual characteristics of stutterers.
Subjects: 36 stutterers.
Methods: Twelve stutterers using self-help therapy are compared with 12 on traditional therapy and 12 on a waiting list for therapy. Stutterers' perceptual characteristics are studied through Witkin's dimension of field dependency, and results are compared with normative data. Project also includes development of a circulating library of taped speech therapy materials adapted for different age, vocational, and language groups.
Duration: September 1968-September 1971.
Investigator(s): W. Edward McGough, M.D., Associate Professor of Psychiatry, Bernard S. Lee, B.S., Biomedical Engineer, Department of Psychiatry, Medical School, and Maryann Peins, Ph.D., Associate Professor of Speech, Douglass College, Rutgers University, New Brunswick, N. J. 08903.
Cooperating group(s): Office of Research and Demonstrations, Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal of Speech and Hearing Disorders, 1970.

26-JI-1 AN APPRAISAL OF THE PSYCHOSOCIAL EFFECTIVENESS OF A GROUP HOME TREATMENT PROGRAM FOR ADOLESCENT GIRLS

Purpose: To evaluate the social adjustment made by all girls who were treated in this program from 1959-1969; to distinguish the components within the program that yield specific benefits and outcomes; to discern the processes whereby socially desirable personality change or improved social functioning can be accomplished through group living; to develop improved criteria for future admissions or to alter the program so as to be more helpful to more girls.
Subjects: 40 girls.
Methods: Data are assembled through a variety of instruments, including a personal interview, and are related to a baseline evaluation of each girl's developmental potential at the time she entered the group home. Subjects are evaluated on an 11-point scale along the dimensions of interpersonal relations, adjustment to family, community relationships, self-concept, motivation, affective control, mood, dependence-independence, emotional regression or antisocial behavior, vocational or educational development. A control group consists of early dropouts and untreated girls who did not enter the residence for reasons other than severity of disturbance.
Duration: January 1970-December 1972.
Investigator(s): Jerome L. Singer, Ph.D., Director of Research in Cognition and Affect, The Graduate Center, City College, City University of New York, New York, N. Y. 10033. (Reported by Joseph L. Taylor, M.S.W., Executive Director, Association for Jewish Children, 1301 Spencer St., Philadelphia, Pa. 19141.)
Cooperating group(s): Mr. and Mrs. Lessing J. Rosenwald's Children's Fund.
Publications: Monograph planned.

Socially Deviant

26-KA-1 ILLEGITIMACY IN CENTRAL CITY

Purpose: To study the reaction of adolescent girls to the experience of an illegitimate pregnancy and birth over time in an area in which such births are frequent; to ascertain the role of the social milieu in producing a high frequency of such births; to study the reaction over time of the families of these girls.
Subjects: Married and unmarried pregnant girls age 17 or under from Central City who attend the Family Planning Clinic; control group of unmarried, never pregnant girls from Central City obtained by neighborhood canvass.
Methods: Pregnant girls are interviewed three times prior to delivery regarding family structure, family reaction, their own reaction, and dating history. They are then visited at Charity Hospital at time of birth to determine reaction to birth. Following delivery, the girl and her mother are interviewed at home, and the father is interviewed where possible. In addition, interviews are held with persons who know the social system in Central City and who have experience with these girls. Control girls are interviewed for dating history and social activities.
Duration: August 1969-August 1971.
Investigator(s): Ann Fischer, Ph.D., Professor of Anthropology, Newcomb College, Tulane University, New Orleans, La. 70118.
Cooperating group(s): Welfare organizations in Central City.

26-KE-1 SOME EGO FUNCTIONS ASSOCIATED WITH DELAY OF GRATIFICATION IN MALE DELINQUENTS

Purpose: To compare two groups of institutionalized adjudicated delinquent males on foresight and planning ability, impulse control, verbal delay of gratification, internal v. external control, and institutional adjustment.
Subjects: 20 boys who had chosen to attend public school even though this would delay their institutional release (delayers); 20 controls, matched on age, I.Q., and length of stay.
Methods: Porteus Maze, a verbal measure of delay of gratification, a verbal measure of the perception of internal v. external control, and ratings of adjustment were obtained for both groups of boys.
Findings: Significant differences were found in impulsiveness, verbal delay, and internal v. external control; no differences in foresight and planning, and adjustment.
Duration: 1968-completed.
Investigator(s): Robert V. Erikson, M.A., Psychologist, Youth Development Center, Loysville, Pa. 17047; and Alan H. Roberts, Ph.D., Associate Professor of Physical Medicine and Psychology, University of Minnesota, Minneapolis, Minn. 55455.
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish.

26-KQ-1 DELINQUENTS AS THERAPEUTIC VISITORS TO MENTAL PATIENTS

Purpose: To examine the effect on the self-concept of delinquents of a relationship in which the delinquent perceives himself as a helper to another human.
Subjects: Institutionalized delinquent youth and regressed mental patients.
Methods: Twenty delinquents are individually paired with patients at a mental hospital with whom they visit periodically. During the visits, delinquent-patient pairs will be permitted to engage in a wide variety of activities, either as single pairs, with other pairs, or with other patients. No attempt is made to structure the delinquent-patient interaction in a therapeutic, counseling, or helping fashion, and it is not proposed to train the delinquents to be junior therapists. Instead, a systematic attempt will be made to help the delinquents, involved staff, and patients understand each other's "life space".
Duration: October 1969-September 1970.
Investigator(s): J. Robert Russo, Ed.D., Associate Professor in Psychology, Education Division, Southern Illinois University, Edwardsville, Ill. 62025.
Cooperating group(s): Camp Pere Marquette of the Illinois Youth Commission; Alton State Hospital; Illinois Department of Mental Health; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Information available on request to Madison County Unit, Alton State Hospital, College Avenue, Alton, Ill. Reports are planned.

26-KR-1 COMMUNITY TREATMENT PROJECT--PHASE III: AN EVALUATION OF DIFFERENTIAL TREATMENT FOR DELINQUENTS

Purpose: To determine whether it is feasible and, in terms of improved treatment outcomes, meaningful to (1) broaden the range and refine the types of settings and treatment strategies in and through which differential treatment can be carried out for specified delinquent subtypes;

(2) broaden the range and variety of offenders to whom differential treatment may usefully be applied; (3) continue, as in Phase II, to isolate the factors which may be responsible for the success of the differential treatment approaches which have been developed to date; and (4) continue to refine and expand the "Differential Treatment Model". (See Research Relating to Children, Bull. No. 19-KG-1 and No. 20-KM-2.)
Subjects: Approximately 500 males, ages 13 to over 21, committed to the California Youth Authority for the first time from juvenile and criminal courts from throughout the greater Sacramento area.
Methods: Using preestablished criteria regarding which wards would best begin their treatment within either a residential setting or within the community proper (direct parole)--through stratified-random assignment--wards would begin their intensive treatment either within a differential-treatment oriented regional treatment center or (as in Phases I and II of the Project, 1961-1969) within the community setting itself. In all cases, a single parole agent, whose caseload would total 12 wards in all, would have primary responsibility for all phases of the wards' treatment, whether in or out of the residential setting. Wards (includes parole-revokees) would remain in the program until discharge from the Youth Authority. In all, four comparison groups will be established. Project evaluation will be in terms of several behavioral indices, several indices of psychological and attitudinal change, plus other indices of overall development and social adaptation. Treatment processes will be very closely monitored and documented.
Duration: October 1969-September 1974.
Investigator(s): Theodore B. Palmer, Ph.D., Principal Investigator, Community Treatment Project, Division of Research, California Youth Authority, State Office Bldg. No. 1, Sacramento, Calif. 95814.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Professional journals; continuous progress reports and technical research papers.

26-KS-1 THE EFFECTS OF MODELING BEHAVIOR ON THE MORAL JUDGMENT OF DELINQUENTS

Purpose: To investigate the influence of actual and symbolic modeling on augmenting moral judgment in adolescent delinquent males.
Subjects: 36 juvenile delinquents, 60 percent of whom had been referred to a juvenile court more than once for antisocial behaviors. On the average the delinquents were lower class 13-year-olds of largely Mexican-American extraction, with an I.Q. of 75.
Methods: Following procedures adapted from Bandura and McDonald (1963), subjects were assigned equally to one of three groups: actual modeling, symbolic modeling, and control. The first group observed a preinstructed model who expressed high level moral judgment responses to Piaget-type intentionality items. Subjects in this group were reinforced with verbal approval for adopting the high level judgments of the model in response to equivalent items presented them. The second group was presented with printed ("symbolic") responses of high level moral judgments to the same items, in place of the live model. They were similarly reinforced verbally on responding with high level judgment to equivalent additional items. The third group, acting as a control, was administered all items without verbal reinforcement of any kind. Generalizing of effect was tested through assessing performance on a related nonmanipulated aspect of moral judgment, moral realism adapted from Le Furgy and Woloshin (1969).
Findings: Both actual and symbolic modeling produced short-term significant increases in intentionality. No significant differences between treatments were evidenced on moral realism, although all three groups declined slightly on this dimension on retesting.

Duration: June 1969-March 1970.
Investigator(s): Norman M. Prentice, Ph.D., Professor of Psychology and Education, University of Texas, Austin, Tex. 78712.
Cooperating group(s): Travis County Juvenile Court, Austin, Tex. 78701.
Publications: Preliminary results to be presented at Southwestern Psychological Association Meeting, St. Louis, April 23, 1970. Formal publication anticipated at a later date.

.26-KS-2 SOCIALIZATION AND SOCIAL INTEGRATION OF A GROUP OF JUVENILE DELINQUENTS

Purpose: To measure socialization and integration of juvenile delinquents in relation to school, work situation, family life, leisure, and friends; to determine changes which occurred during three years after contact with youth courts.
Subjects: Two groups of delinquent boys, ages 16 to 18, who went to court in Brussels for thievery or vandalism in 1969 or three years earlier; two control groups of boys matched for age, community, and socioeconomic status, who have not had any contact with youth court.
Methods: Highly structured interview.
Duration: January 1969-June 1971.
Investigator(s): Jorine Junger-Tas, Docteur en Sciences Sociales Candidate, Sociologist, Centre d'Étude de la Délinquance Juvénile, 44 Avenue Jeanne, Brussels 5, Belgium.
Publications: To be published by the Centre d'Étude de la Délinquance Juvénile, probably in 1971.

THE CHILD IN THE FAMILY

Family Relations

26-LA-1 PATTERNS AND CONTINGENCIES OF MOTHER-INFANT GAZING

Purpose: To study the patterns and contingencies of social behavior in infants and their mothers over the first four to five months of life.
Subjects: 40 mother-infant pairs from S. Boston.
Methods: Home observations every 10 days of the naturalistic behavior of mother-infant pairs with recording of continuous sequences of interaction during each visit.
Duration: June 1969-August 1971.
Investigator(s): Kenneth S. Robson, M.D., Assistant Professor of Psychiatry, Tufts University Medical School, Boston, Mass. 02111.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publications planned.

26-LA-2 INTRAFAMILY FEEDBACK IN EXTERNALIZING, INTERNALIZING, AND FUNCTIONAL FAMILIES

Purpose: To study the ability of family members to give one another "feedback" (express things they like and dislike about one another), and their related gaze and facial behavior.
Subjects: Child Guidance Clinic, delinquent, and PTA family triads consisting of two parents and one son in the 9- to 18-year age range.
Methods: The Ferrira and Winters Family Questionnaire is administered, and each member of the triad is requested to make 12 "comments" about each of the other two and himself. The discussions are audio and video recorded, and transcripts are made and scored for clear and vague positive and negative comments, plus gaze and facial behavior.
Duration: July 1969-December 1970.
Investigator(s): David C. Speer, Ph.D., Research Psychologist, Amherst H. Wilder Foundation, 670 Marshall Ave., St. Paul, Minn. 55104.
Publications: Family Process.

26-LA-3 SELECTED ASPECTS OF ADOLESCENT EXPERIENCE OF CHILDREN IN CAREER ARMY FAMILIES

Purpose: To study the adolescent experience of teenage members of career Army families as perceived by the teenagers and their parents; specifically, to investigate the school experience and friendship patterns in both formal and informal groupings and to determine how these are perceived as differing from the experience of adolescents in non-Army families.
Subjects: 60 adolescents residing at Fort Ord, Calif.; their parents.
Methods: Data obtained through structured individual interviews with teenagers are compared with data obtained in parallel interviews with their parents.

Duration: January 1968-June 1970.
Investigator(s): Maj. Paul F. Darnauer, D.S.W. Candidate, Research Sociologist, Division of Personnel Studies and Research, Office of the Deputy Chief of Staff for Personnel, Department of the Army, U. S. Department of Defense, Washington, D. C. 20022.
Cooperating group(s): University of Southern California School of Social Work, Los Angeles, Calif. 90007.

26-LA-4 A STUDY OF 97 FAMILIES FROM WHICH CHILDREN HAVE BEEN REMOVED BY CHILD WELFARE AUTHORITIES

Purpose: To analyze the internal family situation preceding the removal of a child by child welfare authorities.
Subjects: 97 children, ages 9 to 12, who are living in Copenhagen and have been removed from their homes because of adjustment difficulties.
Methods: Study of documents on which removal decisions have been based, i.e., reports from schools, from representatives of welfare authorities, and from the children's homes, etc.
Findings: Results to date indicate that removal of the child from the home is not strictly coincidental with the highest point of social strain within the family.
Duration: 1966-April 1970.
Investigator(s): Jacob Vedel-Petersen, Program Director, Inger Koch-Nielsen, and Mogens Nord Larsen, Research Associates, Danish National Institute of Social Research, Borgergade 28, Copenhagen, Denmark.
Publications: Plan to publish in The Institute's series.

26-LA-5 A STUDY IN VIVO OF DISTURBED AND NORMAL FAMILY MILIEUX

Purpose: To gather basic descriptive data on the distinctive features of family process in a wide range of families, and to investigate the differences between schizopresent, nonschizopresent "problem", and normal families.
Subjects: 24 families differentiated along class, ethnic, and religious lines.
Methods: Data collection method and procedure include participant and electronic observation; family, subgroup, and individual interviews; projective tests; and self-reports.
Duration: April 1969-March 1972.
Investigator(s): David Kantor, Ph.D., Director, Institute for the Study of Family and Youth, Boston State Hospital, Boston, Mass. 02124.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned on completion of project.

26-LA-6 PROJECTION AND IDENTIFICATION IN FAMILIES OF TWINS

Purpose: To understand the origins and evolution of parental views of their children, how these views are reflected in parent-child interaction, and the consequent personality differences that develop. (See also Bull. No. 26-AA-16.)
Subjects: 10 pairs of twins, eight identical and two nonidentical, up to three and one-half years of age.

Methods: Material is obtained from a prenatal interview of the parents, observation of the delivery of the twins, neurological evaluation of each twin in the first week of life and between the age of one to two years, nursery observations by hospital staff, postnatal home interviews done every three months, and "blind" observations and testing by a child psychiatrist.
Duration: 1966-continuing.
Investigator(s): Martin G. Allen, M.D., Clinical Associate, and William Pollin, M.D., Chief, Section on Twin and Sibling Studies, Adult Psychiatry Branch, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014; Axel Hoffer, M.D., Assistant Clinical Director, Massachusetts Mental Health Center, 74 Fenwood Rd., Boston, Mass. 02115.
Publications: Paper presented at the American Psychiatric Association Convention, San Francisco, Calif., May 1970.

Childrearing

26-MB-1 CITY, COUNTRY, AND CHILDREARING IN THREE CULTURES: EFFECTS OF ACCULTURATION AND URBANIZATION ON MOTHER-CHILD INTERACTION AND FAMILY LIFE

Purpose: To evaluate effects of such variables as ethnicity, economic deprivation, and psychological pressures of urbanization and acculturation on the development of personal competence and mastery in the young child; specifically, to relate these global variables to child behavior through an investigation of maternal attitudes and methods of childrearing in urban and rural environments.
Subjects: Mothers, fathers, and preschool children of low income families in three cultural groups: urban Anglo-Americans, urban and rural Spanish-Americans, and urban and rural Baganda from Uganda, East Africa. Survey samples of approximately 30 in Spanish and Baganda, and sample of 10 in each ethnic group for extensive observation.
Methods: A survey interview included demographic variables, economic data, and scales of cultural norms of family life and childrearing patterns, interethnic contact, and reference group identification. Ten families surveyed were chosen for representativeness, and both descriptive and systematically coded observations were made of mother-child interaction totalling three to four hours and gathered over several visits to the home. Mothers were then given an open-ended tape-recorded interview on their attitudes toward the potentialities of their children, the type of child they would prefer to have, their own feelings of efficacy as mothers, and the methods of childrearing they believed they used. Fathers from the observation sample were interviewed on the same variables as the total sample plus questions contrasting urban and rural living. Finally, case studies were made of a few mothers to more deeply probe their personal histories and to investigate possible influences on their childrearing techniques.
Findings: Although urban Spanish identified more highly and had more contact with Anglos than did rural Spanish, they were less like Anglos in childrearing patterns than their rural counterparts. Both urban groups (Spanish and Baganda) showed changes in affective patterns and were less future-oriented in their methods than the rural groups.
Duration: September 1965-Fall 1970.
Investigator(s): Nancy B. Graves, Ph.D. Candidate, Assistant Professor of Psychiatry and Sociology, Mental Retardation Program, Neuropsychiatric Institute, University of California Medical School, Los Angeles, Calif. 90024.

Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Doctoral dissertation; book and articles in professional journals planned.

26-MC-1 INSTRUCTIONAL STRATEGIES IN INFANT STIMULATION

Purpose: To continue the investigation of a home-oriented approach to intellectual stimulation of disadvantaged children between the ages of three months and one year. (See Research Relating to Children, Bull. No. 21-MC-1.)
Subjects: The original group of 180 mothers and their infants randomly assigned to four experimental conditions: mother taught by professional, infant taught by professional, mother taught by paraprofessional, infant taught by paraprofessional.
Methods: Teaching style will be measured through systematic observation of a standardized 15 minute video sample consisting of the professional or paraprofessional teacher's administration of the same stimulation task directly to an infant or her teaching of the administration of the same stimulation task to a mother. The tasks used may be varied at different points in the chronological age of a child, but the measurement task at any one age point (e.g., 37 weeks) will be the same for all of the teachers involved. Tasks will be selected from the Stimulation Series which are most appropriate for the age involved.
Duration: January 1970-December 1971.
Investigator(s): Ira J. Gordon, Ed.D., Professor of Education, and Director, Institute for Development of Human Resources, and R. Emile Jester, Ph.D., Associate Professor of Education, University of Florida College of Education, Gainesville, Fla. 32601.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Progress report at end of 1970; final report at conclusion of project.

26-MC-2 AN INTEGRATED HOME AND SCHOOL EARLY EDUCATION PROJECT

Purpose: To study the possibility of providing for the improved preparation of children from low income, culturally deprived families for entrance into public schools by teaching the mothers of these families how to foster the intellectual development of their infants and young children.
Subjects: Consenting parents of about 100 children, initially between ages of 8 and 20 months, in a community defined by the boundary lines of one school.
Methods: Tutors will be selected and trained to make home visits initially lasting one hour a day, four days a week, with time divided between working with the infant and the mother as the developmental stages and responsiveness of the infant and the interest and attention of the parent warrant. As the parent demonstrates readiness to assume the tutoring responsibility, the amount of tutoring time will be reduced to a minimum of a visit every other week. At the end of three years, a proposal for a followup study will be submitted which will be designed to follow these same parents and children until the children enter first grade. The basic data of the project will consist of measures of the intellectual growth of children in the experimental group as contrasted with preselected children in four control groups of the ages at which the

experimental group will be tested.
Findings: Results of a four month pilot study indicate that whole families profit from contact with tutors, mothers are more anxious to work with older preschoolers, and even three-year-olds can be enlisted to work with babies.
Duration: June 1970-June 1973.
Investigator(s): Margaret M. Conant, Ph.D., Supervisor, Child Study Programs, Board of Education, Prince George's County, Upper Marlboro, Md. 20870. (Reported by Virginia R. Klaus, Coordinator, Early Education Project.)
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Results will be published by the Prince George's County Board of Education.

SOCIOECONOMIC AND CULTURAL FACTORS

26-NA-1 CONSUMPTION KNOWLEDGE AMONG SELECTED GROUPS OF CHILDREN

Purpose: To determine the degree of consumption knowledge among children and its variation with social background.
Subjects: 200 to 250 elementary school children selected from census tracts to provide varied backgrounds.
Methods: Personal taped interviews are held with children selected according to varying social class, family size, income groups, and education of parents.
Findings: Results of an earlier pilot study indicate that consumption knowledge varies with age and social background. (See Research Relating to Children, Bull. No. 17-W-5.)
Duration: January 1970-January 1971.
Investigator(s): James U. McNeal, Ph.D., Professor and Head, Department of Marketing, Texas A. and M. University College of Business Administration, College Station, Tex. 77840.
Publications: Monograph planned.

26-NA-2 SOCIAL CLASS VARIATIONS IN DOMESTIC SPEECH PATTERNS

Purpose: To specify the major differences in speech usage of different social groups, and the linguistic implications of such speech patterns; to relate the differences and implications to different types of family organization and role structure.
Subjects: 20 families of different social classes with a firstborn child age four in 1968.
Methods: Parents are interviewed, and three recordings, each four hours in length, are made of the speech of the four-year-old and those with whom he comes in contact in the home.
Duration: Summer 1968-Summer 1971.
Investigator(s): A. J. Wootton, M.Sc., Research Fellow, Department of Sociology, Kings College, Aberdeen University, Aberdeen, Scotland.
Cooperating group(s): Association for the Aid of Crippled Children.
Publications: Monograph or series of articles in British sociology and speech journals.

26-NC-1 A STUDY OF FACTORS ASSOCIATED WITH THE PROCESS OF POLITICAL SOCIALIZATION OF CHILDREN

Purpose: To discover the degree of association of age, sex, social class, and rural/urban residence with the political socialization process.
Subjects: 227 third, sixth, and ninth grade public school students in Illinois urban and rural schools.
Methods: A 42-item questionnaire derived from the Bill of Rights was administered and three scores derived. Tests of significance were then applied to the data.

Findings: Age is directly related to positive responses, <.001 significance level. Other factors are not significant at .05 level.
Duration: May-December 1969.
Investigator(s): John M. Bustard, Ed.D. Candidate, Principal, J. W. Hays Elementary School, Urbana, Ill. 61801.

26-NC-2 POLITICAL SOCIALIZATION AMONG RURAL YOUTH

Purpose: To replicate an earlier study of urban youth in order to determine children's understanding of American democracy, their affect for a government, view of the Presidency, and notion of rights and obligations of citizenship; and to relate the above to psychological and socioeconomic as well as demographic variables.
Subjects: Public school children in their correct grade placement in grades 4, 6, 8, and 10 in the Cattaraugus, N. Y. school system.
Methods: Personal interviews.
Duration: January-December 1970.
Investigator(s): Roberta Sigel, Ph.D., Professor of Political Science and Social Welfare, State University of New York, Buffalo, N. Y. 14214.
Publications: Publication planned for 1971.

26-NC-3 CHANGES IN THE CONCEPTUALIZATION OF THE POLITICAL REGIME BY CHILDREN IN THE AGE YEARS 8 TO 16

Purpose: To investigate how children actively structure their political world.
Subjects: Boys, ages 8, 11, and 16.
Methods: In individual interviews, each child is asked to make up what he feels would be the perfect government, and following this, a number of standardized probes dealing with situations which involve certain specified political principles are administered. Interviews are tape recorded and transcribed, and several independent variables are used in analyzing data.
Duration: September 1969-August 1970.
Investigator(s): Ellen F. Crain, Ph.D. Candidate, Department of Political Science, University of Chicago, Chicago, Ill. 60637.
Cooperating group(s): National Science Foundation.
Publications: Abstract to be submitted to American Political Science Review.

26-NC-4 ETHNIC SCHOOLS AND POLITICAL CULTURE IN THE PHILIPPINES

Purpose: To assess the functions of the Filipino and Chinese schools in socializing youth into the Philippine political culture.
Subjects: Graduating English language seniors, ages 15 to 17, graduating Chinese language seniors, ages 16 to 20, and college students.
Methods: A random sample of 35 students is intensively interviewed, and a questionnaire is submitted to a purposive sample of 4,500 to 5,000 students in 20 schools in 8 cities. Data derived include class, age, region and type of school, degree of residual Chinese characteristics, racial stereotypes, sense of political capability, and degree of political discontent.
Duration: June 1969-September 1970.

Investigator(s): Robert O. Tilman, Ph.D., Department of Political Science, Yale University, New Haven, Conn. 06520.
Cooperating group(s): University of the Philippines.
Publications: Reports on pretests submitted to Asian Survey, University of California, and Solidarity, Manila. Monograph planned.

26-NE-1 CHILDREN'S KNOWLEDGE AND USE OF THE CITY

Purpose: To develop criteria for designing the urban environment so that children can learn from and enjoy it; specifically, to determine how children now spend their time in the city, what aspects of cities are most interesting to them, what problems they have in exploring the city, how much they know about it, and whether social class affects children's city use and knowledge.
Subjects: Boys, ages 10 to 12, from two socioeconomic groups in Cambridgeport, Mass.
Methods: Data on children's use of the city and on their environmental values were obtained from extensive interviews with children and parents, photo surveys of the city done independently by each child, city maps drawn by children, diaries of city activities, and field trips planned by children. Information on children's knowledge of the city was obtained from interviews, a map comprehension test, and a photo recognition experiment.
Duration: Fall 1968-Fall 1970.
Investigator(s): Michael Southworth, Ph.D. Candidate, Department of Urban Studies and Planning, Massachusetts Institute of Technology, Cambridge, Mass. 02139.
Cooperating group(s): National Science Foundation; National Endowment for the Arts.

26-NG-1 LANGUAGE SOCIALIZATION OF AUSTRALIAN ABORIGINES

Purpose: To understand language socialization in hunting and gathering societies; specifically, to determine the social and cultural factors and people that influence the development of the child's communicative competence, and functions of speech for the child in a band society.
Subjects: Children at the mission at Warburton Ranges in Western Australia.
Methods: Naturalistic observation and testing.
Duration: September 1969-August 1970.
Investigator(s): Wick R. Miller, Ph.D., Associate Professor of Anthropology, University of Utah, Salt Lake City, Utah 84112.
Cooperating group(s): Australian Institute of Aboriginal Studies; Anthropology Department, University of Western Australia; National Science Foundation.
Publications: Will probably be presented in one or more journal articles.

26-NG-2 CROSS-NATIONAL STUDY OF THE CONTENT OF FIRST GRADE READING TEXTBOOKS FROM 20 FOREIGN COUNTRIES AND THE UNITED STATES

Purpose: Since cultural, interpersonal, and individual attitudes and values are communicated through the content of primer reading materials, and since national differences exist between primers of different

countries, present research attempts to demonstrate that national characteristics in socialization and personality and psychological and cultural influences on reading instruction can be learned from primer content.
Subjects: First grade reading textbooks presently in use from the United States and 20 foreign countries.
Methods: Content analysis of United States primers and translated copies of primers presently in use in Argentina, Australia, Brazil, Canada (French and English), Chile, France, Great Britain, India, Israel, Italy, Japan, Korea, Lebanon, Mexico, Norway, Russia, Spain, Sweden, Turkey, and West Germany along 38 attitudinal sets derived by Wiberg and Blom. These attitude sets include cultural posture, other-directed posture, and inner-directed posture. Two trained raters coded the stories. Comparisons between countries and comparisons with data derived by other investigators will be made. A preliminary analysis of 60 randomly selected stories in primers from five countries has been completed: United States, South Korea, England, West Germany, and Russia. Differences between countries for each of the 38 attitudinal sets was determined, and reliability of the scale was established by comparing findings with those reported by other investigators.
Findings: It was demonstrated that this approach is workable and reliable for assessing societal attitudes and values. Results from cross national application are statistically comparable and point to distinguishing characteristics between countries. Similarities of findings with other cross-national studies using different methods was very high.
Duration: October 1968-July 1973.
Investigator(s): Gaston E. Blom, M.D., Professor of Education and Psychiatry, Acting Chairman, Department of Psychiatry, and Director, Day Care Center, and Sara Goodman Zimet, Ed.D., Instructor in Psychiatry, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: International Journal of Psychology, in press, 1970; in Comparative Reading, by John Downing. New York: Macmillan, in preparation, 1970.

26-NG-3 THE PRAIRIE COMMUNITY OF CANADA

Purpose: To identify the types of Canadian prairie communities and eventually, to improve their environments, especially as homes where children grow up and attend school.
Methods: The economic and social structures of towns and villages outside of 10 prairie cities in Manitoba, Saskatchewan, and Alberta are studied through analysis of available records; resulting data are put on computers. Case studies of nine groups are then made, each group consisting of an independent trading town and the villages and smaller towns in its trading area.
Duration: 1968-1970.
Investigator(s): Carle C. Zimmerman, Ph.D., Faculty Professor, and Garry Moneo, M.A. Candidate, Department of Sociology and Anthropology, University of Calgary, Calgary, Alberta, Canada.
Cooperating group(s): The Canada Council.
Publications: In Proceedings of the Institut International de Sociologye, XXII Congress, Rome, 1969; monograph in preparation.

EDUCATIONAL FACTORS AND SERVICES

General

26-OA-1 THE EFFECTS OF SCHOOL ENVIRONMENT ON DISADVANTAGED KINDERGARTEN CHILDREN, WITH AND WITHOUT A HEAD START BACKGROUND

Purpose: To study the comparative effects of two distinct school environments on verbal and social growth of children with and without a Head Start background. If significant effects occurred, it was hoped that those environmental elements enhancing any positive residual effects of Head Start could be identified and used in future research and educational programs.
Subjects: Five groups of 15 kindergarten children, two in the Wisconsin State University-Oshkosh campus school and three in the Oshkosh Public Schools.
Methods: Children were divided into a high SES group and a low SES group with Head Start experience in each environment, and a low SES group without Head Start in the public schools. Verbal and social skills were measured in the fall and at the end of kindergarten by means of the Illinois Test of Psycholinguistic Abilities, the Metropolitan Reading Readiness Test, and the Vineland Social Maturity Scale.
Findings: No significant residual effects of the Head Start experience were observed. There was only one significant effect possibly attributable to school environment: children in the campus school showed greater social growth than children in the public school.
Duration: November 1968-November 1969.
Investigator(s): Daniel O. Lynch, Ph.D., Assistant Professor of Educational Psychology, and Richard Hammes, Ph.D., Coordinator of Educational Research, and Director of the Campus Laboratory School, Wisconsin State University, Oshkosh, Wis. 54901.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education; may publish in Child Development.

26-OA-2 EARLY CHILDHOOD EDUCATION STUDY: AN INTERNATIONAL STUDY OF EARLY CHILDHOOD EDUCATION

Purpose: To describe and assess early childhood education practices in the United States, England, Israel, and selected countries of Asia.
Subjects: Stratified sample of preschool installations enrolling children four years old or younger.
Methods: Review of research literature pertinent to the countries in the study, and site visits to sample of preschool installations. A nursery schools observation schedule, in two parts, has been developed and pretested for data gathering. Data collected is being treated with standard survey research techniques.
Duration: Not reported-June 1971.
Investigator(s): John I. Goodlad, Ph.D., Director, Research Division,

Institute for Development of Educational Activities, Inc., 1100 Glendon Ave., Suite 950, Los Angeles, Calif. 90024. (Reported by Dr. Jerrold M. Novotney, Special Assistant to the Director.)
Publications: Two monographs dealing with research literature, four monographs treating practices, a "white paper" on recommended practices, and a book on early childhood education.

26-OA-3 RESEARCH AND DEVELOPMENT CENTER IN EDUCATIONAL STIMULATION

Purpose: To establish a center to provide children with educational stimulation activities; specifically, to probe children's learning limits, establish new norms, provide structured material, and disseminate findings and materials.
Subjects: Culturally deprived and nondeprived children, ages 3 to 12.
Methods: The Center's research activities include: construction of a theory of teaching and learning; measurement of certain learning processes in children and a study of the acceleration rate of these processes; determination of the relationship of subjects, tasks, and treatments to communication; investigation of the relationship of cognitive learning to social context and to the school's administrative organization.
Investigator(s): Dr. Eugene M. Boyce, Director, Research and Demonstration Center in Educational Stimulation, University of Georgia, Athens, Ga. 30601. (Reported by Warren G. Findley, Ph.D., Professor of Education and Psychology, University of Georgia.)
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Information available from Dr. Boyce.

26-OA-4 DECENTRALIZATION AND COMMUNITY CONTROL IN URBAN AREAS

Purpose: To analyze data from research literature, ongoing research, and demonstration projects in order to arrive at guidelines as to what types of data are needed to be obtained for decentralization and community control in different types of communities; to arrive at a conceptual framework for planning for research on urban education; to develop a new theory of urban education to provide a "map" of research needs in terms of priorities and selected urban areas.
Methods: Interviews with members of school boards, school administrations, professional staff, community advisory committees, and community organization leaders.
Duration: June 1969-April 1970.
Investigator(s): Simon Marcson, Ph.D., Associate Professor of Sociology, Rutgers University, New Brunswick, N. J. 08903.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Report to Office of Education.

26-OB-1 PROJECT ESCAPE--ENRICHED SOCIAL COUNSELING AND PROBLEM EVALUATION

Purpose: To evaluate the effectiveness of continued remedial counseling with students being disciplined for serious breeches of school conduct; to provide preventative counseling for students whose school behavior indicates a progressive, incipient deterioration before disciplinary action is necessary.

Subjects: Students being disciplined by the assistant principal of Altoona Area High School.
Methods: Each student is counseled regarding behavior, self-understanding, problem identification, and remediation, and is given the California Test of Mental Maturity and the California Test of Personality, the results of which are interpreted for him. During counseling contacts, students complete periodic self-estimates and evaluations of the counseling endeavor. Effects of treatment are looked for in students' behavior, retention rates, and attitudes toward the disciplinary process, and an increased understanding by teachers of the students and their problems and awareness of the nature and complexity of the team approach to the disciplinary process.
Duration: Not reported.
Investigator(s): Thomas E. Long, Ed.D., Professor of Education, Pennsylvania State University, University Park, Pa. 16802.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-OD-1 AN EVALUATION OF SEX EDUCATION--ITS SOURCES AND EFFECTS

Purpose: To evaluate effects of a formal family life and sex education program on the secondary level; to develop a set of generalizations with respect to the evolution and change of sexual attitudes, behaviors, and knowledge on the part of adolescents with a view toward suggesting the timing and pacing of sex education curricula in the schools.
Subjects: Adolescents, ages 15 through 19, who have participated in a sex education program; control group of students who have not participated.
Methods: Before and after design by means of questionnaire and interview provides data on background of adolescents, manner in which they are taught, interactions with parents, siblings, peers, and other socializing agents. Sexual attitudes, inferred behaviors, level of knowledge, and changes which occur from participation in the program are determined, described, and analyzed.
Duration: January-December 1969.
Investigator(s): Paul H. Gebhard, Ph.D., Professor of Anthropology, and Director, and James E. Elias, M.A., Associate Sociologist, Institute for Sex Research, Indiana University, Bloomington, Ind. 47401.
Publications: Publication planned in 1970.

26-OF-1 A STUDY OF HOME ENVIRONMENT AS IT RELATES TO READINESS FOR ACHIEVEMENT AT SCHOOL

Purpose: To provide a better understanding of the home and classroom environments that may help or hinder the student's readiness for achievement orientation at school, and to provide information concerning methods that may help to set a favorable environment through teacher, parent, and student counseling for achievement orientation.
Subjects: 80 elementary school pupils and 200 college students.
Methods: Relationships between achievement orientation readiness, home environment, and school achievement are assessed. Half of the students who are low on achievement orientation readiness receive counseling, and the other half serve as a control group. After three months of weekly counseling all relevant measures are readministered and any changes assessed. A followup procedure will be set up to study the persistance and stability in the relevant variables over a two- to four-year period.
Findings: Counseling has a predictable effect, at least on verbal behavior in students.

Duration: May 1969-May 1970.
Investigator(s): Gunars Reimanis, Ph.D., Professor of Psychology, Corning Community College, Corning, N. Y. 14830.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Technical report to Office of Education; publication planned in Developmental Psychology, Journal of Educational Psychology, or Psychology in the Schools.

26-OF-2 IDENTIFICATION PATTERNS, ACHIEVEMENT VALUES, AND BEHAVIOR ORIENTATIONS AS PREDICTORS OF ACADEMIC ACHIEVEMENT OF EIGHTH-GRADE GIRLS

Purpose: To apply concepts from social learning theory to the understanding of factors related to academic achievement.
Subjects: 300 eighth grade girls randomly chosen from junior high schools in a large midwestern city.
Methods: A specially developed research instrument was used to assess the students' identification and achievement patterns and their achievement values and those of their identifying figures. A card sort was used to assess behavior orientations toward achievement, peer affiliation, nonconformity, and independence. Resulting data were used with scores from the California Test of Mental Maturity in partial correlation and regression analyses to predict achievement as measured by grade point averages and by total scores on the Iowa Test of Basic Skills. In addition, achievement was predicted by the CTMM, and discrepancies were studied in relation to identification patterns and values.
Duration: Completed.
Investigator(s): Thomas A. Ringness, Ph.D., Professor of Educational Psychology, University of Wisconsin, Madison, Wis. 53706.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Journal of Educational Psychology, July 1970.

26-OF-3 THE ACHIEVEMENT MOTIVE AS RELATED TO ADOLESCENT CLIQUE STATUS OF HIGH SCHOOL GIRLS

Purpose: To explore the relationship between educational and career motivation in girls attending two high level secondary schools.
Subjects: Girls in grades 9 to 12 in a public high school and girls matched for age and ability in a selective private school.
Methods: Each girl is given a structured interview which is tape recorded and analyzed through rating scales. An achievement motive picture series and sociometric measures are also used.
Duration: September 1968-June 1970.
Investigator(s): Anne Bloom, Ph.D. Candidate, Psychologist, Bryn Mawr College, Bryn Mawr, Pa. 19010.
Publications: To be available on microfilm at Bryn Mawr College Library.

26-OG-1 ASSESSMENT OF CHILDREN WITH SCHOOL ADJUSTMENT PROBLEMS

Purpose: To evaluate a program of assessment and treatment of children with school adjustment problems.
Subjects: 28 children, ages 6 to 12, with severe school adjustment

problems other than intellectual deficits; control group not attending program.
Methods: Children attend a summer program conducted in a modified school/camp milieu. Pre- and post- data, consisting of taped conferences and written tests and questionnaires, are obtained for both groups of children from parents, members of the treatment team, and the children themselves. Analysis of variance is used with a covariance adjustment to allow for possible initial differences between the groups. Emphasis is on feedback to classroom teachers.
Duration: May 1969-May 1970.
Investigator(s): S. R. Jensen, M.D., Psychiatrist, Toronto, Ontario; and P. K. Koopman, Ph.D., Assistant Professor, Department of Educational Psychology, University of British Columbia, Vancouver, British Columbia, Canada.
Cooperating group(s): Vancouver Island School Camp for Special Children; Department of Mental Health, Province of British Columbia; Department of National Health and Welfare, Canada.
Publications: Information available from investigators.

26-OG-2 DIFFICULTIES IN SCHOOL ADJUSTMENT OF CHILDREN, AGES 9 TO 12

Purpose: To investigate the school adjustment of children with and without adjustment difficulties, and to study the benefits they derive from school, their health, their need for special treatment, etc.
Subjects: 1,168 school children, ages 9 to 12, living in Copenhagen and Randers County, Denmark.
Methods: Teachers and parents are interviewed, and school and municipality records are studied.
Findings: Results to date indicate an essential difference between those with and those without adjustment difficulties in benefits derived from school, amount of help needed from the school system, etc.
Duration: June 1968-April 1970.
Investigator(s): Jacob Vedel-Petersen, Program Director, and Mogens Nord Larsen, Research Associate, Danish National Institute of Social Research, Borgergade 28, Copenhagen, Denmark.
Publications: Plan to publish in The Institute's series.

26-OG-3 THE RELATIONSHIP BETWEEN THE TEACHER'S CREATIVE BEHAVIOR AND HER ABILITY TO RECOGNIZE CREATIVE BEHAVIOR IN HER PUPILS

Purpose: To determine whether teachers who manifest a high degree of creative behavior are better able to recognize creativity in their pupils than are those whose test results indicate that they are not so adept at thinking in divergent and original modes.
Subjects: 60 third, fourth, and fifth grade teachers and a random sample of their students.
Methods: Teachers and children are given a test battery including the Rorschach, Hanfmann-Kasanin Concept Formation, Physiognomic Stick Figure, and Gottshalk Story Telling Tests and the Torrance Tests of Creative Thinking. Teachers are also given the Semantic Differential Test.
Duration: January 1970-June 1971.
Investigator(s): Margaret Danenhower, Ph.D. Candidate, Clinical Psychologist, Philadelphia General Hospital, Philadelphia, Pa.
Cooperating group(s): University of Pennsylvania Medical School and Eastern Pennsylvania Psychiatric Institute, Philadelphia, Pa.

26-OJ-1 PARENT TRAINING PROGRAMS

Purpose: To develop a parent training program which can be administered by semiprofessional personnel, with emphasis on behavior modification principles and the service of children with many different behavioral problems.
Subjects: Parents of children ranging from preschool to junior high age, referred to the program by personnel of the Salt Lake City School District.
Methods: Parents are divided into two experimental groups and trained in the use of behavior modification procedures. Group I is trained with a traditional lecture presentation, and few contingencies are placed on parents' behavior. Group II is contacted daily, family intervention is more personalized, a number of contingencies are placed on parents' behavior, and parents can earn money for changes in behavior. A control group receives no treatment. Evaluation will be by videotapes, interviews, data collected on and by the parents, and other methods.
Duration: January-August 1970.
Investigator(s): Hermann A. Peine, Ph.D. Candidate, Director of Parent Training, Behavior Modification Training Center, Salt Lake City, Utah 84112.
Publications: Results will be available from the Bureau of Educational Research, University of Utah, Salt Lake City, Utah 84112.

26-OJ-2 MENTAL HEALTH CONSULTATION WITH LOW SES PARENTS

Purpose: Because of the importance of the parent-child relationship for the behavior and performance of children, a number of community parent consultation and other preventive programs instruct mothers in the proper ways of training children. In order to provide an empirically justified content for such programs, this research studies the relationship of the attitudes of low SES mothers toward childrearing and education, and the school performance of their children.
Subjects: 75 children enrolled in a Head Start program and their mothers.
Methods: The relationship between the children's performance and behavior, and the educational and childrearing attitudes of their mothers, demographic variables, etc., are studied with a multiple regression model. Measures on the children include the Peabody Picture Vocabulary Test, scales from the WPPSI and ITPA, the Preschool Attainment Record, a visual perception test, and behavior ratings by teachers. Measures on mothers include an abbreviated Parent Attitude Research Instrument, and Parent-Child Relations Questionnaire, the Environmental Participation Index, two Thurstone-type measures of educational attitudes, and a newly developed Likert-type measure of educational attitudes.
Duration: June 1968-June 1970.
Investigator(s): Kenneth M. Goldstein, Ph.D., Research Psychologist, Wakoff Research Center, 657 Castleton Ave., Staten Island, N. Y. 10301.
Cooperating group(s): Head Start Program, Staten Island.
Publications: Final report available June 1970; professional publications planned.

26-OK-1 INTERPERSONAL VALUES AND ASPIRATION LEVELS OF NEGRO SENIORS IN TOTALLY INTEGRATED AND SEGREGATED SOUTHERN HIGH SCHOOLS

Purpose: To investigate the effect of attending totally integrated Southern high schools on the interpersonal values and aspiration levels of Negro seniors; to determine additional effects of integrated education on Negro students.

Subjects: 341 Negro high school seniors of both sexes: 179 who attended totally integrated high schools, and 162 who attended segregated all-Negro high schools. Subjects were all of same socioeconomic status.
Methods: Aspiration level was determined by a two-factor criterion consisting of occupational choice and educational plans. Occupational choices were classified according to the occupational choice categories outlined in A. B. Hollingshead's Two Factor Index of Social Position. Educational plans were assessed by a checklist embracing six plans following graduation from high school. Data regarding interpersonal values were gathered by Leonard V. Gordon's Survey of Interpersonal Values. A special questionnaire checklist was utilized to gather data relevant to the additional special research questions. The principal means of data analysis were analysis of covariance and chi square.
Findings: No significant difference was found between totally integrated and segregated seniors on the six interpersonal values with which the study was concerned. There was no difference in occupational choice. A significant difference was found between the school types in educational plans.
Duration: April-December 1969.
Investigator(s): James H. Knight, Ph.D. Candidate, College Counselor and Assistant Professor, North Carolina Central University, Durham, N. C. 27707.
Cooperating group(s): Four totally integrated high schools and four segregated all-Negro high schools in the Piedmont section of North Carolina.

Specific Skills

26-PA-1 THE EFFECTS OF SKILL-LEVEL GROUPING IN MODERN MATHEMATICS, K-6, ON STUDENT ACHIEVEMENT IN MATHEMATICS IN A NEGRO NEIGHBORHOOD SCHOOL WHEN PREVIOUS INSTRUCTION HAS BEEN EXCLUSIVELY TRADITIONAL MATHEMATICS

Purpose: To test the hypothesis that skill-level grouping in modern mathematics in a Negro neighborhood school will result in higher individual achievement than grade-level grouping; specifically, to determine the effects of student grouping by level of achievement and teaching toward predetermined achievement levels in a mathematics environment shifting from a traditional to a modern approach, and to determine whether this method minimizes negative effects of the shift in mathematics approaches.
Subjects: Negro children in a neighborhood school; control group in a different school.
Methods: Students were given standardized tests to determine their respective levels of mathematics skill and then grouped according to these levels. Anticipated achievement levels were set for each student, and they were then taught toward that goal. Standardized pre- and posttests measured any changes in behavior levels, and locally developed test items were used to regroup students and measure progress during the program. Students in experimental program were compared to those in the control school.
Duration: July 1968-June 1969.
Investigator(s): Virginia Gilbert, Ph.D., Mathematics Teacher, J. Harold Brinley, Jr. High School, Las Vegas, Nev. 89108.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-PB-1 A COMPARISON OF GROUP AND INDIVIDUAL REWARDS IN TEACHING READING

Purpose: To investigate the use of operant techniques in classrooms of normal class size, and to compare several modes of reinforcement in classroom use.
Subjects: 150 fourth grade children.
Methods: Children were randomly assigned to a 14-week reading course with five experimental conditions: (1) individual reward (released time), (2) group reward, (3) no reward, (4) random reward, and (5) combined individual and group reward. Equivalent SRA reading materials were used in each class, and teachers were randomly assigned daily to the different classes. Children were posttested at conclusion of course.
Duration: September 1969-June 1970.
Investigator(s): John F. Jacobs, Ed.D., Assistant Professor of Special Education and Child Psychiatry, University of Florida, Gainesville, Fla. 32601.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned in an education journal.

26-PB-2 PERCEPTION AND RETENTION IN CHILDREN'S READING

Purpose: To add to the growing body of knowledge of the basic psychological mechanisms involved in reading through study of perception and retention processes.
Subjects: Good and poor readers, preschool through college-age.
Methods: Perceptual and short-term memory tasks concentrating on processing times (reaction times).
Duration: September 1968-August 1971.
Investigator(s): Leonard Katz, Ph.D., and David Wicklund, Ph.D., Associate Professors of Psychology, University of Connecticut, Storrs, Conn. 06268.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish in appropriate psychological and educational journals.

26-PB-3 EFFECTS OF A LANGUAGE PROGRAM ON TWO-YEAR-OLD CHILDREN AND THEIR MOTHERS

Purpose: To determine the effects of a total language treatment designed to stimulate, increase, and improve receptive and expressive aspects of two-year-old children's language functioning.
Subjects: Lower class mothers or mother substitutes, each with a two-year-old child.
Methods: Subjects are divided into three groups of 10 mother-child pairs each. In a preschool setting, experimental children receive a structured language treatment providing a continual exchange of conversation and individual attention to structure, syntax, and the conceptual content. Mothers observe modeled adult-child interaction and are taught to apply the language treatment techniques in the home. One control group will receive pre- and posttests only. Children of the second control group will experience a typical day care environment, and their mothers will receive group counseling. All mothers and children will be measured on their entering and leaving syntax rates, which will be analyzed for gain scores and correlations. In addition, children will be tested for

receptive language ability, and mothers' attitudes will be measured by means of a semantic differential.
Duration: February-June 1970.
Investigator(s): Marlis Hemphill, Ed.D. Candidate, Graduate Assistant, Department of Elementary Education, Arizona State University, Tempe, Ariz. 85281. (Reported by Dr. Thomas H. Metos, Bureau of Educational Research and Services, Arizona State University.)
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-PB-4 CRUDE GAIN VERSUS TRUE GAIN: CORRELATES OF GAIN IN READING AFTER REMEDIAL TUTORING

Purpose: To compare the correlates of crude gain after remedial reading tutoring; to explore the correlates of true gain in word recognition, oral reading, silent reading, and listening comprehension after remedial reading tutoring.
Subjects: Records of children, ages 7 to 13, who had been diagnosed and tutored at the University of Florida Reading Laboratory and Clinic. Tutoring had been individually administered for an average of 23 hours.
Methods: Crude gain in reading was computed for each child by subtracting initial test scores from final scores. True gain in reading was computed for each child according to a regression formula devised by Frederic M. Lord. The formula compensates for the effects of errors of measurement which strongly influence crude gain measures. Independent variables included age, grade, tutoring hours, certain WISC scores, Rosenzweig Picture-Frustration Study for Children scores, and Gallagher's Children's Rating Scales. Criterion variables were crude gain and true gain in word recognition, oral reading, silent reading, and listening comprehension. All of the data were subjected to a stepwise multiple regression analysis. The sign test was applied to the simple correlation matrices to compare the correlates of true gain with crude gain correlates.
Findings: In general, the correlates of true gain were significantly more numerous and more predictable than the correlates of crude gain. Findings suggest that the four aspects of reading tend to be separate and distinct activities.
Duration: June 1968-August 1969.
Investigator(s): Chester E. Tillman, Ed.D., Assistant Director, Reading Laboratory and Clinic, and Assistant Professor of Comprehensive English, University of Florida, Gainesville, Fla. 32601.
Publications: Plan to submit to various national reading journals.

26-PB-5 TYPES OF BILINGUALISM AND PERFORMANCE OF NAVAHO CHILDREN IN SCHOOL

Purpose: To extend previous research (see Research Relating to Children, Bull. No. 19-CP-3); specifically, to determine (1) differences in school performance among compound bilingual, coordinate bilingual, and English-speaking monolingual Navaho children; (2) effects of a year's preschool instruction in English on Navaho-English compound bilinguals and Navaho-speaking monolinguals; and (3) worthwhile lasting effects of preschool language instruction. Findings should provide guidance for the efficient education of bilingual school beginners by providing information about what type of bilingualism to foster and effects of preschool English instruction.
Subjects: Five experimental groups of Navaho children from the Window

Rock-Ft. Defiance public schools: (1) kindergarten compound bilinguals; (2) kindergarten Navaho-speaking monolinguals; (3) first grade English-speaking monolinguals; (4) first grade compound bilinguals; and (5) first grade Navaho-speaking monolinguals.
Methods: Dependent variables are measured by intelligence, social development, and achievement tests. Data are treated by analyses of variance and covariance.
Duration: September 1969-August 1971.
Investigator(s): Kenneth Stafford, Ph.D., Professor of Educational Psychology, Arizona State University, Tempe, Ariz. 85281.
Publications: Publication planned.

26-PB-6 DECISION MODELS IN REMEDIAL READING--A PILOT PROJECT

Purpose: To study the problem of matching individual children to the remedial reading techniques having the highest likelihood of success; specifically, to examine three replicable remedial techniques to determine those learner characteristics associated with positive and negative responses to each method.
Subjects: 30 students in each of three remedial classes.
Methods: The kinesthetic, visual-right, and auditory-phonic approaches were randomly assigned to each remedial class and eight teachers were assigned to the three methods. Each child was measured on 36 quantifiable psychological, educational, and demographic variables. Diagnostic information was related to treatment outcomes and prediction equations, calculated through step-wise regression analysis, to allow for future assignment of each child to the most beneficial remedial method.
Duration: September 1968-August 1969.
Investigator(s): Norman E. Silberberg, Ph.D., Assistant Director, Kenny Rehabilitation Institute, 1800 Chicago Ave., Minneapolis, Minn. 55404.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Presented at American Educational Research Association Meeting, Minneapolis, Minn., March 5, 1970; publication planned.

26-PB-7 COMPREHENSION BY THIRD, SIXTH, AND NINTH GRADERS OF WORDS HAVING MULTIPLE GRAMMATICAL FUNCTIONS

Purpose: (1) To identify words having multiple grammatical functions and to estimate the frequencies with which those functions occur in English; (2) to determine whether children's difficulties in understanding language stem at least in part from difficulty in interpreting words used in less common grammatical usages; (3) to trace correlates with grade and verbal ability; (4) to investigate teaching procedures to help children understand words in less common grammatical functions.
Subjects: Various phases of the study will be conducted on samples of children in the third, sixth, and ninth grades in public schools in urban, suburban, and rural areas, with classification into socioeconomic groups.
Methods: Frequency lists are studied to identify words with multiple grammatical functions. Children are given words to use in sentences; the grammatical part of speech of the words is determined by inspection of the sentences. Children are given specially constructed tests to determine their comprehension of the words in both their frequent and their less frequent grammatical usages. Programmed workbook instruction is given in the comprehension of words in less frequent grammatical usages, and its effectiveness is tested by a pretest-posttest design.

Findings: A large number of multiple-grammatical-function words have been identified; results of comprehension tests suggest that comprehension varies with frequency of usage of the various grammatical functions.
Duration: June 1969-October 1970.
Investigator(s): John B. Carroll, Ph.D., Senior Research Psychologist, Educational Testing Service, Princeton, N. J. 08540.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Publication is planned in a professional journal such as the Journal of Educational Psychology.

26-PB-8 THE RELATIONSHIP BETWEEN MODES OF EXPRESSING AGGRESSION, READING ACHIEVEMENT, AND ATTITUDE TOWARD READING IN FIRST GRADE CHILDREN

Purpose: To test the following hypotheses: (1) children who cope prosocially with aggression and are ready for reading will succeed in learning to read and will have a positive attitude toward reading; (2) children who cope asocially with aggression and are ready for reading will be underachievers and will have negative attitudes toward reading; (3) children who are prosocial but not ready for reading will become asocial; (4) children who are asocial and not ready for reading will increase in their asocial behavior; and (5) boys will demonstrate the above hypotheses at a more significant level than will girls.
Subjects: 50 first graders from two classes.
Methods: The Clymer-Barrett Reading Readiness Test is administered during the first few weeks of school. At the end of the school year, a standardized group reading achievement test will be administered. In October, February, and May of the school year, the Rosenzweig Picture Frustration Study and a children's attitude toward reading scale will be individually administered to the children. The two first grade teachers will also fill out checklists of manifest aggressive behavior and attitude toward reading on each child at these same three times. Observer ratings of television taped classroom sessions will also be made at three intervals during the year. The same checklists used by the teachers will be used by the observers.
Duration: September 1969-June 1970.
Investigator(s): Gaston E. Blom, M.D., Professor of Education and Psychiatry, Acting Chairman, Department of Psychiatry, and Director, Day Care Center, and Sara Goodman Zimet, Ed.D., Instructor in Psychiatry, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal publication planned.

26-PB-9 SYMBOLIZATION IN DYSLEXIC CHILDREN AND ADOLESCENTS

Purpose: To determine the role of symbolization in dyslexia, particularly with regard to form/pattern sensitivity and awareness related to reading.
Subjects: Normal and dyslexic boys and girls, ages 10 to 18.
Methods: The Kahn Test of Symbol Arrangement and the experimental form of the Polyglot Reversals Test are used in a series of experiments with different samples and age groups.
Findings: Results of testing with different student samples, including gifted pupils with I.Q.'s of 130 and above, indicate that dyslexic children and adolescents are less sensitive in the area of form perception than normal and above average readers.

Duration: 1968-1970.
Investigator(s): Rudolph F. Wagner, Ph.D., Chief Psychologist, Richmond Public Schools, Richmond, Va. 23219.
Publications: Academic Therapy, 1970, in press; International Journal of Symbology 1:1, 1969.

26-PB-10 A STUDY OF THE PSYCHOLOGICAL, CULTURAL, ENVIRONMENTAL AND SOCIOECONOMIC FACTORS RELATED TO PRESCHOOL PREDICTION OF READING RETARDATION

Purpose: To develop predictor measures which will indicate the need for specific corrective procedures for reading retardation before secondary emotional problems develop; to determine different corrective and remedial programs for specific groups.
Subjects: 300 children from four schools in an extremely disadvantaged area, a middle class suburban area following graded and nongraded programs, and a high socioeconomic level area.
Methods: Children's results on the Sprigle School Readiness Screening Test, Stanford-Binet Intelligence Test, Early Detection Inventory, Dyslexia Schedule, and Preschool Attainment Record are used to determine predictor-criterion relationships as the children proceed through the primary grades. Preschool evaluation also includes determination of children's medical and family history, evaluation of sociometric data, and measurement of visual-motor coordination, and visual, auditory, and tactile perception.
Findings: Interim results indicate that the percentage of children ready for the first grade differs significantly with socioeconomic area; however, the range of scores within each group implies the involvement of genetic, psychogenic, and accidental factors.
Duration: March 1969-continuing.
Investigator(s): M. S. Aftanas, Ph.D., Associate Professor, A. H. Shephard, Ph.D., Professor and Head, Department of Psychology, W. Wallace Grant, M.D., Professor of Pediatrics, University of Manitoba, and Director, Anne Bell, B.Paed., M.A., and L. Schwartz, M.A., Psychologists, Child Development Clinic, The Children's Hospital, Winnipeg, Manitoba, Canada.
Publications: Information may be obtained from Department of Psychology, University of Manitoba, or Child Development Clinic, The Children's Hospital; publication planned.

26-PB-11 TEACHING STANDARD ENGLISH AS A SECOND DIALECT TO SPEAKERS OF NONSTANDARD ENGLISH IN HIGH SCHOOL BUSINESS EDUCATION

Purpose: To investigate the effects of teaching standard English as a second dialect to nonstandard dialect speakers.
Subjects: 20 experimental and 30 control subjects in grade 10, enrolled in beginning typing classes, with I.Q. scores of 94 or above as measured by the Lorge-Thorndike, Form 1-F, who have scores of 30 percent nonstandard or above on a dialect interference interview test and are majoring in business education.
Methods: Experimental subjects attend laboratory class in standard English for duration of one school year. Instructional materials and methods presented are continuously evaluated, a diagnostic test is administered at the beginning and end of each lesson, and tests are given after each unit. Records are kept of time required by each student and each lesson, amounts of extra practice needed, and amount of supplementary material time. Student scores from Stanford Achievement Test, Forms W and A, and a local grammar test of nonstandard Negro dialect interference are obtained before and after treatment of all 50 students and treated with

analysis of covariance techniques. Followup consists of recording number of students enrolling in shorthand in Grade 11, progress of these students in shorthand classes, and recording of final course grades.
Duration: February 1969-January 1970.
Investigator(s): Barbara P. Hagerman, M.A., Linguistic Research Specialist, San Bernardino City Unified School District, San Bernardino, Calif. 92410.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Claremont Reading Conference Yearbook, 1969.

26-PB-12 RELATIONSHIP BETWEEN MUSICAL APTITUDES AND SECOND LANGUAGE LEARNING

Purpose: To study relationships between selected music abilities and aspects of learning Spanish as a second language; specifically, to test the hypothesis that significant positive correlations exist between measured musical ability factors and comprehension and pronunciation of Spanish.
Subjects: Fifth grade students from Leon County School District, Florida.
Methods: In a pilot study, Seashore measures of musical talent on pitch, intensity, rhythm, timbre, and tonal memory were obtained for 25 students in grades three and four who had not had musical training. In addition, 25 students were given six weeks of audiolingual Spanish instruction, and their achievement was then rated by three judges of Spanish intonation, stress, word juncture, and vowel discrimination. Distribution of scores for language achievement and Seashore tests determines sample size for main study, which follows procedures similar to those used in pilot study. Correlations between musical ability and Spanish comprehension and pronunciation are determined from multiple regression analysis of scores on Seashore and language achievement tests.
Duration: July 1968-April 1970.
Investigator(s): Sonya I. Arellano, M.A., Instructor, Department of Education, Florida State University, Tallahassee, Fla. 32303.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to journals in field of language learning.

26-PC-1 EFFECTS OF SELECTED ENVIRONMENTAL STIMULI ON THE ART PRODUCTS AND CRITICAL AESTHETIC JUDGMENTAL ABILITY OF FIVE-YEAR-OLD CHILDREN

Purpose: To determine the effects of a prototype environment on the overall aesthetic quality of art products, ability to make critical aesthetic judgments, and concept formation of children.
Subjects: Experimental and control groups drawn from parent population of five-year-old children in a one-mile radius of Arizona State University.
Methods: Experimental group attends class in a prototype environment while control group receives identical treatment in a traditional setting in the nursery school of the Home Economics Department of Arizona State University. Aesthetic education treatment includes behavioral subtasks and activities and techniques of perceptual and sensorimotor learning. Art product, critical judgmental ability, and concept formation will be measured.
Duration: September 1969-August 1970.
Investigator(s): Nelson Haggerson, Ph.D., Chairman of Secondary Education, and Anne P. Taylor, Ph.D. Candidate, Graduate Assistant,

Department of Elementary Education, Arizona State University, Tempe, Ariz. 85281. (Reported by Dr. Thomas H. Metos, Bureau of Educational Research and Services, Arizona State University.)
Cooperating group(s): Monsanto Chemical Company.
Publications: Doctoral dissertation; plan to submit to Studies in Art Education.

26-PC-2 COMPARISON OF THE USE OF THE ACTIVE GAME LEARNING MEDIUM AND TRADITIONAL LEARNING MEDIA IN THE DEVELOPMENT OF FIFTH GRADE SCIENCE CONCEPTS WITH CHILDREN BELOW NORMAL INTELLIGENCE QUOTIENTS

Purpose: To determine whether the active game learning medium was more effective than traditional classroom procedures in teaching children with I.Q.'s below normal.
Subjects: Two groups of 10 fifth grade children matched on the basis of pretest scores on science concepts.
Methods: One group was designated as the active game group and the other the traditional group. Both groups were taught the same science concepts by the same teacher over a two-week period, at which time the children were retested. Following the second test there was no formal instruction on the science concepts that were taught during the two-week period. They were tested a third time for retention at an interval of three months after the second test. Appropriate statistical comparisons were used in comparing the groups.
Findings: Using the differences in the test scores as criteria for learning, results indicated that the children in the active game group learned more than the traditional group and retained well what was learned.
Duration: January 1968-July 1969.
Investigator(s): James H. Humphrey, Ed.D., Professor of Physical Education, University of Maryland, College Park, Md. 20740.
Publications: AAHPER Research Abstracts, Washington, D. C., 1970.

26-PC-3 MELODIC LISTENING SURVEY--EXPLORATORY STUDY OF LISTENING DEVELOPMENT IN PRIMARY AND SECONDARY SCHOOLS

Purpose: To measure the level of listening development attained in present music education programs and evaluate current objectives of these music listening programs; to provide a means of charting the course of listening development.
Subjects: 5,000 children in grades four to seven in two Cleveland, Ohio public schools and one school each in Dallas, Tex., Toronto, Ontario, Canada, Providence, R. I., Rochester, N. Y., and West Hartford, Conn.
Methods: Classroom teachers administered the Melodic Listening Survey to measure children's listening development, and results were correlated with curricula which had been analyzed as to content for teaching listening skills needed for auditory-visual perception, exercise of sensory response and tonal memory, and use of musical concepts of musical expression. A musical curriculum questionnaire was used to collect data on the various curricula from classroom teachers.
Duration: June 1968-December 1969.
Investigator(s): A. Viola Peterson, Ph.D., Teacher, Laboratory School, Rhode Island College, Providence, R. I. 02908.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-PD-1 A STUDY OF DIALECT VARIATION WITH RELATION TO SPELLING

Purpose: To study the effect of dialect variation upon children's ability to learn sound-symbol relationships; specifically, to clarify issues in the teaching of spelling relevant to the varied interpretation of sound symbols.
Subjects: Children in two sixth grade classrooms selected from each of six dialect areas in the United States. Classes are matched for intelligence with each approaching a normal curve, i.e., a median I.Q. of 100.
Methods: Homogeneity of pupils in classrooms is determined in order to select only those children deviating significantly from the standard area dialect. Subjects are given specially constructed spelling tests containing 19 phonemes which are analyzed to determine whether their misspellings vary between children with different dialects. Thirteen of the phonemes are selected as showing a marked dialectic variation, and the remaining six serve as controls. Second phase of project consists of presentation of six weekly lessons based upon six generalizations about phoneme-grapheme relationships. Rules are drawn from an analysis of orthography and its relationship to a "standard" dialect. Difference between pupils' achievement is compared to determine whether dialect affects pupil ability to learn about phoneme-grapheme relationships.
Duration: Not reported.
Investigator(s): Richard T. Graham, M.A., Instructor, Department of English, University of Nebraska, Lincoln, Neb. 68508.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

Special Education

26-QD-1 TOTAL THERAPEUTIC PROGRAM FOR EMOTIONALLY DISTURBED CHILDREN IN THE CLASSROOM SETTING

Purpose: To demonstrate that emotionally disturbed children can be effectively treated in a regular classroom; to determine the relative importance of the control of classroom behavior, motivation to learn, remedial education, and solving emotional conflicts; and to improve methods of obtaining pertinent data.
Subjects: Six children selected by counselors for treatment; control group of seven similar children in another school district.
Methods: Baseline control with four treatment variables added, then subtracted. Barline for each succeeding variable is a stable rate of change. Data are derived from twice daily recorded observations of behavior, academic progress, psychometric and projective tests, analysis of weekly pictures and stories, and reports of social workers. The University of Victoria computer plots graphs and analyses for significance of change.
Duration: September 1969-July 1971.
Investigator(s): Philip G. Ney, M.D., Child Psychiatrist, Victoria Mental Health Centre, 2328 Trent St., Victoria, British Columbia, Canada.
Cooperating group(s): School District No. 3, Saanich, British Columbia; Mental Health Branch, Victoria, British Columbia; Department of National Health and Welfare, Ottawa.
Publications: Paper presented at Canadian Psychiatric Association Meeting, June 1970; journal publication to follow.

26-QD-2 AN EVALUATION OF THE EFFECTS OF SPECIAL EDUCATION AND PSYCHOTHERAPY ON EMOTIONALLY DISTURBED INNER CITY CHILDREN

Purpose: To assess the effects of special education and psychotherapy, both individually and combined, on inner city children.
Subjects: Hartford, Conn. school children, attending special education and regular classes.
Methods: Children are divided into four groups receiving special education and psychotherapy, special education, psychotherapy, or no treatment. Groups are compared on pre- and posttest measures of intelligence, achievement, classroom behavior, developmental level, and perceptual motor skill.
Findings: Children receiving psychotherapy showed positive changes in classroom behavior and intelligence.
Duration: September 1968-September 1972.
Investigator(s): Robert M. Leve, Ph.D., Chief Psychologist, Sheryl Breetz, B.A., and David Fitzgibbons, Ph.D., Children's Clinic, Institute of Living, 17 Essex St., Hartford, Conn. 06106.

26-QE-1 THE DEVELOPMENTAL EFFECTS OF ENRICHED DAY CARE ON MEXICAN-AMERICAN MIGRANT INFANTS

Purpose: To evaluate the effectiveness of programs of infant stimulation in preventing developmental deficits in disadvantaged children.
Subjects: Spanish-American migrant children under the age of three in the infant day care centers run by the Colorado Migrant Council.
Methods: Pre- and posttests on the Bayley Scales of Infant Development will be used to assess the effectiveness of an intensive three-month program of enriched day care. Comparisons will be made to a control group of matched children who have not received this treatment.
Duration: March-October 1970.
Investigator(s): Leslie L. Segner, Ph.D., Instructor in Psychology, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): U. S. Office of Economic Opportunity.
Publications: Publication planned in either Child Development or American Journal of Orthopsychiatry.

26-QE-2 RELATIONSHIP OF THOUGHT PROCESSES TO LANGUAGE RESPONSES IN DISADVANTAGED CHILDREN

Purpose: To determine the strength and importance of the relationships among features of oral and written language proficiency and accompanying thought processes, especially creative problem-solving; to dimensionalize variables that may be manipulated to assist development of disadvantaged children.
Subjects: 312 children in fifth grade; subsample of 153.
Methods: Children were pretested on 15 variables of language/thinking proficiency such as problem-solving, listening, abstract quality of thinking, and reading achievement, and then assigned randomly to experimental and control treatment groups. Experimental group children received instruction in problem-solving, listening, and abstract thinking. All were posttested, and subsample completed retention tests in the sixth grade. Data were factor analyzed and related to student's socioeconomic class, ethnic background, sex, and language/thinking success before, after, and without experimental training.
Findings: Reading achievement, verbal abstract thinking, and problem-solving could be abstracted and interpreted.

Duration: Not reported-December 1969.
Investigator(s): Sara W. Lundsteen, Ph.D., Associate Professor, and Benjamin Fruchter, Ph D., Professor of Educational Psychology, University of Texas, Austin, Tex 78712. Dr. Lundsteen's present address: International Tower, 666 E. Ocean Blvd., Long Beach, Calif. 90802.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report, December 1969.

26-QE-3 EFFECTS OF A COOPERATIVE PRESCHOOL PROGRAM FOR NEGRO CHILDREN FROM LOW AND MIDDLE SOCIOECONOMIC STATUS BACKGROUNDS

Purpose: To assess the effects of placing preschool age Negro children of low rural and middle socioeconomic backgrounds in a cooperative program.
Subjects: Two experimental classes each consisting of five children from a local Project Head Start Center and ten from the Tuskegee Institute Nursery School; comparison groups of children in regular classes.
Methods: Children participated in cooperative program for a full school term. Pre- and posttest scores on the Stanford-Binet Intelligence Scale, Peabody Picture Vocabulary Test, Illinois Test of Psycholinguistic Abilities, and Brown IDS Self-Concepts Referents Test were compared for experimental and control groups. Relationship between test improvement and social interaction within the experimental classes was explored through observing and categorizing the children's interpersonal activities.
Duration: September 1968-March 1970.
Investigator(s): Edgar G. Epps, Ph.D., Associate Director, Carver Research Foundation, Tuskegee Institute, Tuskegee, Ala. 36088.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

26-QE-4 THE CHILDREN'S TELEVISION WORKSHOP

Purpose: To produce, air, and evaluate "Sesame Street", a nationwide instructional television program for preschool children.
Subjects: Potential audience for the program is the 12,000,000 children in the United States, ages three through five. Special target audience is disadvantaged children.
Methods: Prior to the airing of "Sesame Street" the professional staff of the Children's Television Workshop conducted a program of "formative" research and evaluation designed to provide information for production purposes. A national program of "summative" evaluation is being conducted by Educational Testing Service.
Findings: By the third month, the program reached over 6,000,000 children daily.
Duration: Spring 1968-Summer 1970.
Investigator(s): Joan Ganz Cooney, Executive Director, The Children's Television Workshop, 1865 Broadway, New York, N. Y. 10023. (Reported by Dr. Edward L. Palmer, Director of Research.)
Cooperating group(s): Ford Foundation; Carnegie Corporation; Markel Foundation; Corporation for Public Broadcasting; Office of Education, U. S. Department of Health, Education, and Welfare; Head Start, Office of Economic Opportunity, now being administered by the U. S. Department of Health, Education, and Welfare.
Publications: Final report, articles planned.

26-QE-5 EVALUATION OF THE ELEMENTARY AND SECONDARY EDUCATION ACT IN NORWALK, CALIFORNIA

Purpose: To evaluate the effect of special efforts in reading and mathematics instruction for low income elementary school children.
Subjects: 500 low income elementary school children of various ethnic groups; control group.
Methods: Study employs a longitudinal design. A multivariate analysis of variance is done with gains in achievement and self-concept as dependent variables and personal, school, and teacher data as predictor variables.
Findings: Program activities appear to be partially successful. School and teacher data seem to account for more variance than personal data of children.
Duration: September 1968-July 1972.
Investigator(s): Robert T. Stout, Ph.D., Associate Professor, Claremont Graduate School, Claremont, Calif. 91711.
Cooperating group(s): Norwalk-La Mirada School District, Calif.
Publications: Preliminary report available from Dr. Stout.

26-QE-6 A STUDY OF THE INTELLIGENCE AND SCHOOL ACHIEVEMENT OF CHILDREN PREVIOUSLY ENROLLED IN PROJECT HEAD START

Purpose: To evaluate the long-term effectiveness of compensatory education on the intelligence and achievement of disadvantaged children.
Subjects: 50 disadvantaged children enrolled in the schools of Alachua County, Fla., 25 of whom had participated in Project Head Start in 1966. At that time, they had been randomly selected for testing. Three years later, 25 children not having attended Head Start in 1966 were selected on the basis of eight variables associated with cultural and school experience and matched with Head Start children on basis of race, sex, socioeconomic status, birthday (within three months), kindergarten experience, date of school entrance, grade placement, and type of school.
Methods: The 25 Head Start children were administered the Stanford-Binet Intelligence Test, Form LM, in 1966 while attending Head Start, and again in 1969 within their present school grade. The difference between pre- and posttest scores was evaluated for its significance. The 1969 intelligence test scores of the 25 Head Start children were then compared with the scores of the comparison group, and the difference was analyzed for its significance. The present achievement scores of the two groups were also compared. Subtests of Word Meaning, Arithmetic Computation, and Word Study Skills of the Stanford Achievement Test, Primary II Battery (1964), were used for the assessment. The difference between the means of each set of scores in the three subject areas was analyzed statistically.
Findings: Three years after the Head Start experience, I.Q. scores of the Head Start children were higher at the .01 level of significance. However, the I.Q. scores of the Head Start and non-Head Start children were not significantly different by 1970. Achievement scores in the areas of arithmetic and word study skills did not differ significantly for children who had attended Head Start and those who had not. There was a significant difference in reading, however. Scores of children who had attended Head Start were higher than the scores of the non-Head Start children at the .05 level of significance. The preschool program had stimulated reading readiness skills, and the children had maintained that advantage over non-Head Start children during three years of similar school experience.
Duration: June 1966-August 1969.
Investigator(s): Janet J. Larsen, Ed.D., Assistant Professor of Comprehensive English, Reading Laboratory and Clinic, University of Florida, Gainesville, Fla. 32601.
Publications: Plan to submit to journals for publication.

26-QG-1 A STUDY OF NEGRO MALE HIGH SCHOOL DROPOUTS WHO ARE NOT REACHED BY FEDERAL WORK-TRAINING PROGRAMS

Purpose: To identify categories of Negro male high school dropouts not reached by federal work-training programs and determine the reasons for their nonparticipation, especially in the Neighborhood Youth Corps; to investigate postschool activities of dropouts, including alternative training participation, military service, employment and unemployment, etc.; to develop realistic recommendations to increase the accessibility and utilization of federal manpower programs.
Subjects: 400 Negro male youths in each of two metropolitan areas who dropped out of high school in 1966-67 and have never participated in federal work-training programs.
Methods: Each youth is interviewed to obtain data on his present activities, his activities since leaving high school, his attitudes toward federal work-training programs, reasons for lack of participation, and incentives which might have attracted him to the programs. Characteristics of the two cities' Neighborhood Youth Corps out-of-school programs are studied to determine reasons for participation or lack of it.
Duration: June 1969-March 1970.
Investigator(s): Regis H. Walther, Ph.D., and Margaret L. Magnusson, Social Research Group, George Washington University, 2401 Virginia Ave., N.W., Washington, D. C. 20006.
Cooperating group(s): Office of Manpower Research, Manpower Administration, U. S. Department of Labor.
Publications: Report to be submitted to Manpower Administration.

26-QG-2 MINNEAPOLIS WORK OPPORTUNITY CENTER

Purpose: To determine effects on dropouts of a program of skill training, related academic subjects, job orientation, counseling, and attitudinal modification.
Subjects: High school dropouts.
Methods: An individualized program is worked out for each youth as a result of discussions between him, his counselor, and area teachers. Program includes motivational devices to encourage involvement in learning tasks, counseling, restructuring of work attitudes, job placement, and followup.
Findings: Many enrollees in the Center have returned to their high schools to complete work for a diploma, while others have been placed in jobs commensurate with their skills and interests.
Duration: Continuing.
Investigator(s): Michael P. Joseph, Ph.D., Research Director and Acting Director, Work Opportunity Center, Minneapolis Public Schools, 107 Fourth St., S.E., Minneapolis, Minn. 55414.
Cooperating group(s): Minnesota Department of Education; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report, 1970.

26-QH-1 THE EFFECTS OF AMPHETAMINE THERAPY AND PERCEPTUAL TRAINING ON THE BEHAVIOR AND ACHIEVEMENT OF LOWER CLASS HYPERACTIVE CHILDREN: A DEMOGRAPHIC AND EXPERIMENTAL APPROACH

Purpose: To evaluate the effect of amphetamine therapy and/or prescriptive tutoring on behavioral, achievement, and perceptual-cognitive deficits in hyperactive children with learning problems.

Subjects: 100 lower class hyperkinetic children in grades one to three with demonstrable learning problems.
Methods: Sample is divided into four groups of 25 children each matched for age, grade, and I.Q. Each group is subjected to one of four conditions for the duration of the school year: tutoring twice weekly and amphetamine therapy, tutoring twice weekly and placebo, amphetamine therapy and no tutoring, placebo and no tutoring. Children are evaluated at end of school year.
Duration: July 1969-September 1970.
Investigator(s): W. Glenn Conrad, Ph.D., Chief Clinical Psychologist, E. Dworkin, Ph.D., A. Shai, Ph.D., and Jon Tobiessen, Ed.D., Staff Psychologists, Schenectady County Child Guidance Center, 821 Union St., Schenectady, N. Y. 12308.
Cooperating group(s): New York State Department of Mental Hygiene.
Publications: To be submitted to a scientific journal.

SOCIAL SERVICES

26-RA-1 PREPROFESSIONALS IN THE CHILD WELFARE FIELD

Purpose: To examine the professional problems and working conditions of child welfare workers in New York City who were not formally trained as social workers and to determine the effects of their experience on their subsequent career decisions.
Subjects: Approximately 300 child welfare workers employed in 40 New York City agencies in 1966, at which time they did not have master's degrees in social work.
Methods: Data are collected through two instruments. Each subject is interviewed and later fills out a self-administered questionnaire. The interview is a two-hour semistructured depth interview, tape recorded, and conducted by trained social workers. The interviewer fills out a precoded schedule based on a playback of the interview. The questionnaire requires precoded responses to attitudinal statements, vignettes, descriptive statements, and information about the socioeconomic status of the subject. The interview covers the subject's occupational history and an account of his experience with the agency employing him in 1966 while the questionnaire is focussed mainly on worker opinion of issues in the field.
Duration: September 1968-February 1972.
Investigator(s): Deborah Shapiro, D.S.W., Study Director, Child Welfare Research Program, Columbia University School of Social Work, New York, N. Y. 10028.
Cooperating group(s): Bureau of Child Welfare, New York City Department of Social Services; Office of Probation of the Family Court; Children's Bureau, Office of Child Development, U. S. Department of Health, Education, and Welfare.
Publications: Manuscript for monograph or book should be completed in 1972.

26-RA-2 STUDY OF REFERRALS BETWEEN THE PUBLIC AGENCY AND VOLUNTARY CHILD PLACEMENT AGENCIES UNDER PURCHASE-OF-SERVICE AGREEMENTS

Purpose: To examine the referral process and the characteristics and needs of children being newly referred for placement in order to identify possible blocks in the process, and to determine whether placement facilities currently available and not being used are suitable for children for whom continuing care is being sought; to develop a community plan for the care of children requiring placement.
Subjects: All children referred during a three-month period by the public agency to a voluntary agency under a purchase-of-service agreement; all children referred by a voluntary agency to the public agency for acceptance under purchase-of-service for placement with the referring voluntary agency.
Methods: Data on child and family characteristics, problems, and needs will be collected on schedules developed for the purpose. Through the use of an Activity Log the course of the referral will be followed for a period of three months or until the child is placed, whichever is earlier.
Duration: September 1969-August 1970.
Investigator(s): Marie E. Costello, D.S.W., Senior Research Associate,

Health and Welfare Council, Inc., 1617 John F. Kennedy Blvd., Philadelphia, Pa. 19103.
Cooperating group(s): Philadelphia Department of Public Welfare, and 19 voluntary child placement agencies.
Publications: Report available from Dr. Costello.

26-RB-1 PREVENTIVE AND PROTECTIVE SERVICES WITH MARGINAL FAMILIES

Purpose: To divert marginal families away from large social agencies such as the courts and probation and welfare agencies, and to strengthen the internal capacity of the family group to the extent that they can cope with future problems.
Subjects: Multiple problem families referred from a wide variety of sources with chronic evidence of maladjustment, especially in the areas of child neglect and/or abuse.
Methods: Families are subjected to a wide variety of casework procedures ranging from extremely directive to conjoint family therapy. Specific casework technique is studied in terms of the timing of its use, rather than whether it should be used.
Findings: Ninety percent of family cases studied to date have been successfully closed, i.e., further agency concern is contraindicated.
Duration: January 1964-June 1970.
Investigator(s): Richard W. Deming, M.A., Director of Research, Alameda County Probation Department, Oakland, Calif. 94607.
Publications: Mimeographed report available upon completion.

26-RD-1 LONGITUDINAL STUDY OF ADOPTIVE FAMILIES

Purpose: To explore the strengths and problems in single parent, trans-racial, and traditional adoptions.
Subjects: 50 black children adopted by single parents, 50 black children adopted by white couples, and 50 black children adopted by parents of their own race.
Methods: Evaluation of applicants and child prior to placement through contact with social workers making the placement. Evaluation of strengths and problems as the child grows up through interviews with the adoptive parent, and psychological evaluation of the child at crucial life stages. Initial contacts will be one month after placement and when the child is three and one-half years old; it is hoped that it will be possible to continue contacts at four-year intervals.
Duration: January 1969-not reported.
Investigator(s): Joan F. Shireman, Ph.D., Director of Research, Chicago Child Care Society, 5567 S. University Ave., Chicago, Ill. 60615.
Cooperating group(s): Illinois Children's Home and Aid Society.
Publications: As each stage of the study is completed, publication is planned.

26-RD-2 SUBSIDIZED ADOPTION: A STUDY OF USE AND NEED IN FOUR AGENCIES

Purpose: To explore the need for a public program of subsidized adoption, and to study the children who have found homes through this means with private funding.
Subjects: 600 children, ages 3 months to 18 years, randomly sampled from the foster care caseloads of two public and two private agencies.

Methods: Brief interview with each caseworker whose caseload contained a child in the sample, requesting demographic information about the child, his current living situation, contact with natural parents, plans for the future, and cost of care.
Findings: Subsidized adoption is used for the older or handicapped white child and for the black child of any age. Usually foster parents adopt children who have been in their home an average of four to five years. With public funds available, such adoption might be possible for about one-quarter of the children currently in foster homes in the metropolitan area. This would also effect substantial savings to the community.
Duration: Autumn 1968-Autumn 1969.
Investigator(s): Joan F. Shireman, Ph.D., Director of Research, Chicago Child Care Society, 5567 S. University Ave., Chicago, Ill. 60615.
Cooperating group(s): Child Care Association of Illinois.
Publications: Monograph published by Child Care Association of Illinois, P. O. Box 136, 525 W. Jackson, Springfield, Ill.

26-RE-1 PRACTICE AND ATTITUDES CONCERNING PLACEMENT OF CHILDREN IN FOSTER HOMES

Purpose: To investigate the decisionmaking processes involved in placing and rearing children in foster homes; specifically, to determine the information and attitudes on which decisions are based, and to study the distribution of responsibility and competence between child welfare agencies, parents, and foster parents.
Subjects: Parents of children to be placed in foster homes, foster parents, and child welfare and private foster home agencies.
Methods: Interviews.
Duration: January-Spring 1970.
Investigator(s): Jacob Vedel-Petersen, Program Director, and Henrik Tolstrup, Research Associate, Danish National Institute of Social Research, Borgergade 28, Copenhagen, Denmark.
Publications: Plan to publish in The Institute's series.

26-RG-1 EVALUATION OF SERVICES TO CHILDREN AND FAMILIES IN OWN HOMES TO AVOID PLACEMENT

Purpose: To evaluate the effectiveness of an agency's services in preventing foster placement of children who were referred specifically for such care by family counseling agencies, child guidance clinics, or parents; specifically, to test the hypothesis that well articulated departures, defined in advance, from traditional practice relating to specific modes of treating children and parents can avoid placement for many children who are judged by customary referral sources to require it.
Subjects: 50 children; control group of 50 children in foster family or group home care.
Methods: Individual and family functioning are evaluated on the St. Paul Scale of Family Functioning, which rates 9 main and 27 subareas of family functioning on a seven point scale. Data will be collected and evaluations made at intervals of 9 and 18 months after service began.
Duration: January 1970-December 1972.
Investigator(s): Ludwig Geismar, Ph.D., Director, Research Center, Rutgers University School of Social Work, New Brunswick, N. J. (Reported by Joseph L. Taylor, M.S.W., Executive Director, Association for Jewish Children, 1301 Spencer St., Philadelphia, Pa. 19141.)
Cooperating group(s): Samuel S. Fels Fund.
Publications: Monograph planned.

HEALTH SERVICES

26-SA-1 COMPREHENSIVE SCREENING OF PRESCHOOL AGED CHILDREN

Purpose: To evaluate the feasibility of training women of low income families in screening children to detect health problems such as abnormalities in development, hearing, speech, and eye function.
Subjects: Women of low income families; children, ages one month to six years.
Methods: Five specially trained health aides, indigenous to the areas serviced by the health stations in which they will work, screen children with adapted developmental, speech, hearing, and eye screening techniques. The effectiveness of their screening is evaluated, and the results of screening in the home are compared with results of screening the same children in a health station.
Duration: September 1968-September 1971.
Investigator(s): William K. Frankenburg, M.D., Assistant Professor of Pediatrics, University of Colorado Medical Center, Denver, Colo. 80220.
Cooperating group(s): U. S. Office of Economic Opportunity; Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Article to appear in Journal of Pediatrics.

26-SA-2 WOMEN'S EDUCATION AND COMMUNITY HEALTH

Purpose: To assess the relationship of women's education to their levels of nutrition and sanitation and home practices in these areas, their children's health status and knowledge of desirable health practices, and their families' use of available community health resources.
Subjects: Children in grades four, six, and eight in different communities in Ghana; their families. Sample includes approximately 250 families and represents various levels of mother's education.
Methods: Various facets of educational influences, health status of children, and health knowledge and practices, with a special emphasis on nutrition and sanitation, are studied. Analysis requires specification of subhypotheses and cross-tabulation of variables.
Duration: 1966-1971.
Investigator(s): Kathleen Rhodes, Ph.D., Professor, Department of Community Service Education, College of Human Ecology, Cornell University, Ithaca, N. Y. 14850.
Cooperating group(s): New York State Government; U. S. Department of Agriculture.
Publications: Preliminary reports in 1968, 1969, and 1970; final report in 1971.

26-SD-1 SOCIOETHNOLOGICAL FACTORS IN INFANT MORBIDITY AND MORTALITY

Purpose: To measure the effects of demographic, social, ethnic, and environmental factors on infant mortality and on morbidity as measured by admission to hospital; to utilize this information in estimating the quality of care and the planning of health services.

Subjects: All births to West Jerusalem residents since 1964.
Methods: Prospective followup study with recording of all infant mortality in ethnic groups, low birthweight, gastroenteritis, seasonality of disease patterns, etc. All hospital discharge summaries are abstracted with record linking of all data by computer. Relationship of defined social and environmental attributes to specific disease states is measured by classical and multiple regression techniques.
Duration: 1965-continuing.
Investigator(s): A. Michael Davies, M.D., Professor and Head, Department of Medical Ecology, Hebrew University - Hadassah Medical School, Jerusalem, Israel.
Cooperating group(s): Public Health Service of Jerusalem Municipality; Jerusalem District Health Office, all hospitals and health agencies in West Jerusalem; Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: British Journal of Preventive Social Medicine, in press, 1970; Datamation, p. 257, November 1969; Israel Journal of Medical Science 5:1095 and 1107, 1969.

26-SD-2 ENVIRONMENTAL AND HOST FACTORS IN SUDDEN UNEXPECTED INFANT DEATHS IN ONTARIO

Purpose: To determine the frequency of occurrence of sudden unexpected deaths in infancy and the sociomedical characteristics of infants who succumb; to evaluate some of the existing hypotheses of causation, and to attempt to identify agents or circumstances responsible for the deaths.
Subjects: 66 families living in 12 counties and 2 cities in Ontario who had a child who died aged 28 days to one year between January 1, 1965 and June 30, 1966.
Methods: Confirmation of "diagnosis" on death certificate and sudden nature of death were obtained from physicians. Two to three weeks after the death, parents were interviewed regarding (1) social and demographic factors, (2) circumstances of birth, (3) development of the child, feeding formulas used, illnesses during life, and (4) circumstances of the death, such as time between last feeding and time child was found dead. Other areas, such as response and cooperation, quality of maternal care, reaction to autopsy, and effect of death on the mother were also investigated. After the interviews were completed, analysis of the grouping of the dates of death regarding monthly and seasonal distribution, and numbers of deaths occurring on specific days, was carried out.
Findings: Statistically significant findings suggested the possible role of weather factors.
Duration: Fall 1964-Spring 1970.
Investigator(s): Robert Steele, M.D., D.P.H., Professor and Head, and Arthur S. Kraus, Sc.D., Associate Professor, Department of Community Health and Epidemiology, Queen's University, Kingston, Ontario, Canada.
Cooperating group(s): Department of National Health and Welfare of Canada.
Publications: Paper.

26-SD-3 SURVIVAL AND OUTCOME OF A BIRTH COHORT

Purpose: To study the fertility and fetal loss rates, relationship of gestation to birth weight, and perinatal, neonatal, infant, and toddler mortality and morbidity rates within a specific birth cohort; to evaluate child growth and development in relation to gestation and weight.

Subjects: Area containing approximately 120,000 people belonging to different socioeconomic classes.
Methods: A census of the area is taken, and household and married women's cards are completed. Married women are visited every two months to gather information on menstrual history and inception of pregnancy. Maternal factors and gestation are correlated to baby's birth weight, and the child is followed up every two months for assessment of growth and development. Child morbidity is also noted and, wherever possible, cause of fetal loss is determined.
Duration: April 1969-1973.
Investigator(s): Shanti Ghosh, M.D., Head, Department of Pediatrics, Safdarjung Hospital, New Delhi, India.
Cooperating group(s): National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish.

26-SF-1 POVERTY IN PRESCHOOL CHILDREN OF BRITISH COLUMBIA

Purpose: To determine the medical, social, and economic correlates of poverty in preschool children, and to develop output criteria for the measurement of health care effectiveness.
Subjects: Random sample of children born in 1964 and registered for kindergarten in two areas of Vancouver and in one Indian reserve.
Methods: Each child received a complete physical examination, and screening tests, including hearing, vision, and school readiness. Each parent was interviewed regarding health of his child, social and economic data, and attitudes toward health and health care.
Duration: April 1969-May 1970.
Investigator(s): G. C. Robinson, M.D., Professor, and R. S. Tonkin, M.D., Assistant Professor, Department of Pediatrics, University of British Columbia, Vancouver, British Columbia, Canada.
Cooperating group(s): School Board of Vancouver; Indian Health Department and Band Council; Metropolitan Health Department of Vancouver; Department of National Health and Welfare of Canada.

26-SF-2 HARTFORD HEALTH ACTION SURVEY

Purpose: To gather information on recent family illness experiences in order to alter a University Ambulatory Care Program.
Subjects: Area household adult person probability sample of urban ghetto area adjacent to University-McCook Hospital in Hartford.
Methods: Interviews, conducted by area residents, are held in the homes to determine information regarding children's medical care, what people have done about their family illnesses, their satisfaction with any professional care received, and suggestions for change. Information is related to social characteristics of respondents.
Duration: September 1969-August 1970.
Investigator(s): Ray Elling, Ph.D., Professor of Sociology, University of Connecticut Health Center, Ronald Wintrob, M.D., Assistant Professor of Psychiatry and Anthropology, School of Medicine, and Russell Martin, D.D.S., M.P.H. Candidate, Research Associate, School of Dental Medicine, University of Connecticut, Storrs, Conn.
Cooperating group(s): State Commissioner of Mental Health; Connecticut Regional Medical Program.
Publications: Publication planned.

26-SG-1 ADOLESCENCE RESOURCES CENTER

Purpose: To develop and initiate a crisis intervention program to study prevention of emotional disturbance and social incompetence during the middle or junior high school years.
Subjects: 131 sixth graders, selected by random sample from five elementary schools, which feed into one junior high school in School District No. 17, Sumter, S. C.
Methods: Five teams, each composed of one psychologist and one psychiatric social worker, observe subjects in a group of four, then psychologist interviews each child individually and social worker interviews parents of child. Each team summarizes its observations and consultations are held with child, psychiatrist, pediatrician, nurse, private psychiatrist, and school personnel. Teachers are interviewed individually. Instruments used were developed by project staff and include WISC, HTP, Bender Gestalt, and Rosensweig.
Duration: January 1969-January 1974.
Investigator(s): Racine D. Brown, Ph.D., Consultant and Director, Community Special Project, South Carolina Department of Mental Health, Columbia, S. C. (Reported by M. R. Newton, Director, Adolescence Resources Center, 206 Church St., Sumter, S. C. 29150.)
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Data available from M. R. Newton.

26-SH-1 CHILDHOOD ACCIDENT STUDY

Purpose: To explore ways of identifying "early" battered children who are brought for treatment in hospital emergency rooms with a history of accident.
Subjects: 50 children under age three brought to the emergency rooms of two London hospitals.
Methods: All medical records of the emergency rooms were examined daily for childhood accidents, and a research team of social workers visited the families of those children within a week of their hospital visit. A detailed questionnaire was used to obtain information that would assist in relating the characteristics of the child, his family, and his environment to the occurrence of the injury. Cases are independently assessed and classified in one of the following groups: (1) incident indicative of genuine accident, (2) incident either indicative of neglect or not clearly understood, (3) incident indicative of abuse, or (4) unclassifiable.
Duration: November 1969-1970.
Investigator(s): Carolyn Okell, B.Sc., Research Assistant and Social Worker, Joan Court, M.S.W., Director of Research, and Elizabeth Elmer, M.S.S., Visiting Consultant, Battered Child Research Department, National Society for the Prevention of Cruelty to Children, Denver House, 316 Ladbroke Grove, London W. 10, England.
Cooperating group(s): Joseph Rowntree Charitable Trust.
Publications: Report and article in preparation.

ORGANIZATIONS

ALABAMA

Tuskegee Institute
Carver Research Foundation 26-QE-3

ARIZONA

Arizona State University
Department of Counseling and Educational Psychology 26-PB-5
Department of Elementary Education 26-PB-3, 26-PC-1
Department of Secondary Education 26-PC-1
Jane Wayland Child Guidance Center 26-JG-1
Tucson Child Guidance Clinic 26-JG-2

CALIFORNIA

Alameda County Probation Department 26-RB-1
California State College, Fullerton
Department of Sociology 26-JD-1
California State College, Los Angeles 26-CH-1
California Youth Authority 26-KR-1
Camarillo State Hospital 26-FA-4, 26-JF-2
Child Guidance Clinic of San Diego 26-JH-1
Children's Health Center, San Diego 26-JH-1
Claremont Graduate School 26-QE-5
Institute for the Development of Educational Activities, Inc. 26-OA-2
Kaiser Foundation Hospital 26-AA-5
Pacific Medical Center 26-AA-10
Peninsula Children's Center 26-GC-3
San Bernardino City Unified School District 26-PB-11
Stanford Children's Convalescent Hospital 26-GC-3
Stanford University
Institute for the Study of Human Problems 26-FC-1
Medical School 26-AA-10, 26-DB-2
University of California
Berkeley
Department of Psychology 26-EA-2
Institute of Human Development 26-AA-6
School of Public Health 26-AA-5
University of California (cont'd.)
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